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MOLLUSCA

COMPILED BY

A. E. SALISBURY, A.M.I.E.E.

ASSISTED BY

MARCIA A. EDWARDS, B.Sc.

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I.—TITLES

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Opinion 386. Validation under the plenary powers of the generic name *Pyramidella* Lamarck, 1799. (Class Gastropoda). Opin. int. Comm. zool. Nom. 12 : 231-240.

Opinion 391. Emendation to *Muensteroceras* of the generic name *Munsteroceras* Hyatt, 1884. (Class Cephalopoda, Order Ammonoidea). Opin. int. Comm. zool. Nom. 12 : 285-294.

Opinion 392. Emendation to *Sandbergeroceras* of the generic name *Sandbergeoceras* Hyatt 1844. Opin. int. Comm. zool. Nom. 12 : 295-304.

Opinion 420. Addition to the *Official List of Specific Names in Zoology* of the specific names for eleven species of the Class Brachiopoda and for two species of the Class Cephalopoda originally published by Martin (W.) in 1809 in the nomenclatorially invalid work entitled *Petrificata Derbiensia* and now available as from the first subsequent date on which they were severally published in conditions satisfying the requirements of the Règles. Opin. int. Comm. zool. Nom. 14 : 129-168.

Opinion 422. Determination under the Plenary Powers of the species to which the specific name *mammillatus* Schlotheim, 1813, as published in the combination *Ammonites mammillatus* shall apply and designation under the same powers of the foregoing species to be the type species of the genus *Douvilleiceras* de Grossouvre, 1893 (Class Cephalopoda, Order Ammonoidea). Opin. int. Comm. zool. Nom. 14 : 181-196.

Opinion 426. Designation under the Plenary Powers of type species in harmony with accustomed usage for the genera *Pictonia* Bayle, 1878, and *Rasenia* Salfeld, 1913 (Class Cephalopoda, Order Ammonoidea) (Jurassic). Opin. int. Comm. zool. Nom. 14 : 257-280.

Opinion 427. Rejection for nomenclatorial purposes of the work by Renier (S.A.) known as *Tavole per servire alle classificazione e connescenza degli animali* and commonly attributed to the year 1807 and addition to the *Official Indexes of Rejected and Invalid Names in Zoology* of certain names first used in the foregoing work or in two earlier works by the same author commonly known as *Tavola alfabetica* and the *Prospetto* respectively and both commonly attributed to the year 1804. Opin. int. Comm. zool. Nom. 14 : 281-310.

Opinion 428. Suppression under the Plenary Powers of the specific name *royerianus* d'Orbigny, 1841, as published in the combination *Ammonites royerianus* and designation under the same Powers of a type species in harmony with the accustomed practice for the genus *Chelonicerias*, Hyatt, 1903 (Class Cephalopoda, Order Ammonoidea). Opin. int. Comm. zool. Nom. 14 : 311-322.

Opinion 429. Direction under the Plenary Powers limiting to suppression for the purposes of the Law of Priority the suppression of the generic name *Argus* Bohadsch, 1761 (Class Gastropoda) prescribed by the Ruling given in *Opinion* 185 thereby securing that the generic name *Argus* Scopoli, 1763 (Class Insecta, Order Lepidoptera) shall remain invalid under the Law of Homonymy. Opin. int. Comm. zool. Nom. 14 : 323-337.

Opinion 430. Use of the Plenary Powers for the purpose of making the specific name *minimus* Miller (J.S.), 1826, as published in the combination *Belemnites minimus*, the oldest available name for the species concerned (Class Cephalopoda, Order Dibranchia). Opin. int. Comm. zool. Nom. 14 : 339-346.

Opinion 431. Use of the Plenary Powers to secure that the generic name *Helicella* Férussac, 1821 (Class Gastropoda) shall be available for use in its accustomed sense. Opin. int. Comm. zool. Nom. 14 : 347-372.

Opinion 432. Rejection, as an unpublished proof, of the paper by Binney (W. G.) dated "9th, December 1863" and entitled *Synopsis of the Species of Air-breathing Mollusks of North America* (confirmation of Ruling given in *Opinion 87*) and validation under the Plenary Powers of the generic name *Carinifex* Binney, 1865 (Class Gastropoda). *Opin. int. Comm. zool. Nom.* **14** : 373-392.

Direction 42. Determination of the gender to be attributed to the names of seventy-eight genera of various Classes of Invertebrates and of six genera of the Class Urochorda placed on the "Official List of Generic Names in Zoology" in the period up to the end of 1936. *Opin. int. Comm. zool. Nom.* **1D** : 153-170.

Direction 48. Determination of the authorship to be attributed to the work published anonymously in the year 1798 under the title *Museum Boltenianum* (*Direction* supplementary to *Opinion 96*). *Opin. int. Comm. zool. Nom.* **1D** : 255-264.

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Anon (3). *Nenia* in the Argentine. *Nautilus Philad.* **68** 3 Jan. 1955 : 105.

Anon (4). Family Columbidae (Con.). [*Anachis Strombina* etc.] *Mins. Conch. Club S. Calif.* **154** Jan. 1956 : 8-12.

Anon (5). Family Fissurellidae. *Mins. Conch. Club S. Calif.* **155** Feb. 1956 : 3-8.

Anon (6). Family Trochidae. *Mins. Conch. Club S. Calif.* **156** March-April 1956 : 2-8.

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Anon (9). Family Epitoniidae. *Mins. Conch. Club S. Calif.* **158** June 1956 : 2-6.

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Note.—The arrangement here used follows in general that of Thiele's 'Handbuch'. The most important differences are that Epitonacea and Pyramidellacea are placed immediately preceding Muricacea in order of grouping and the families Triviidae and Eratoidae are placed in Lamellariacea.

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†*Chelodes variegatus* p. 13 pl. 1 f. 4; pl. 2 f. 3, Gotlandian, Silurian, Sweden; *C. longissimus* p. 14 pl. 1 f. 5, Bala, Ordovician, Scotland **spp. nov.**, **J. Bergenhayn**.

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†*Haeggochiton* **gen. nov.** p. 22 Scano-chitonidae Genotype; *Haeggochiton haeggi* **sp. nov.** p. 22, pl. 1 f. 12; pl. 2 f. 11, Senon, Cretaceous, Sweden, **J. Bergenhayn**.

†*Gotlandochiton* **gen. nov.** p. 15 Gotlandochitonidae **fam. nov.** Genotype: *Gotlandochiton interplicatus* p. 15 pl. 1 f. 6; pl. 2 f. 4; *G. laterodepressus* p. 17 pl. 1 f. 8; pl. 2 f. 5; *G. birhombivalis* p. 18 pl. 1 f. 7; pl. 2 f. 6; *G. troedssoni* p. 19 pl. 1 f. 9; pl. 2 f. 7 **spp. nov.** Gotlandian, Silurian, Sweden, **J. Bergenhayn**.

†Gotlandochitonidae **fam. nov.** Type genus: *Gotlandochiton* **gen. nov.** Silurian, Sweden, **J. Bergenhayn** p. 15.

†*Ivoechiton* **gen. nov.** p. 22 Scano-chitonidae. Genotype: *I. levis* **sp. nov.** p. 23 pl. 1 f. 16; pl. 2 f. 10, Senonian. Schonen, Ivö Island, Sweden, **J. Bergenhayn**.

Lioplax of North America, **Clench & Turner** (1).

†*Llandeiloichiton* **gen. nov.** Llandeiloichitonidae Genotype: *L. ashbyi* **sp. nov.** Llandeilo, Ordovician, southern Scotland, **J. Bergenhayn** p. 26 pl. 1 f. 14; pl. 2 f. 12.

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Paricoplax profundior **sp. nov.** 130 fathoms, off the Forty Fours, Chatham Islands, New Zealand, **R. K. Dell** p. 157 f. 213–219.

†*Septemchiton* **gen. nov.** Septemchitonidae Genotype: *Septemchiton vermiformis* **sp. nov.** Scotland, Bala, Ordovician, **J. Bergenhayn** p. 24 pl. 1 f. 15; pl. 2 f. 13, 13a–b.

†*Septemchitonidae* **fam. nov.** Type genus: *Septemchiton* Ordovician, Scotland, **J. Bergenhayn** p. 24.

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Aspidobranchiata

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†*Bellerophon sitiricus*, **B. Khayanlak-hensis** spp. nov. Verkhoyansk ridge, Russia, Permian p. 1103, **Kulikov**, **M. V. C.R. Acad. Sci. Moscow** 101 6 1955.

†*Tremanotus cyclocostatus* sp. nov. Siluro-Devonian. Marble Creek, Thomson River, Victoria, Australia, **Talent & Philip** p. 61 pl. 6 f. 11, 15; pl. 7 f. 16, 17 text-f. 4.

†*Worthenia kobelsbergia* p. 102 pl. 1 f. 7a-c; *W. goederti* p. 103 pl. 1 f. 8a, b; *W. schmidtii* p. 103 pl. 1 f. 9a, b spp. nov. Trochitenkalk, Triassic, Wiesloch, Germany, **H. Eckert**.

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†*Emarginula didactyla* p. 8 pl. 2 f. 2; *E. dilatatoria* p. 9 pl. 2 f. 3 sp. nov. Pliocene, Australia **N. H. Ludbrook** [nom nud. op. cit. 77 1954: p. 58.]; *E. rochefortensis* p. 323 f. 1 2; *E. charmantensis* p. 324 f. 3, 4; *E. arnaudi* p. 325 f. 7, 8; spp. nov. Upper Cretaceous S.W. France, **G. Termier** Bull. Soc. Hist. nat. Toulouse 89 3-4 1954.

Entemnotrochus rumphii Schepman a specimen from near Taiwan, but destroyed pl. 9 f. 3, 4, **T. Kuroda** (2).

Fissurellidae keys and list, **Anon** (5).

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†*Kebinia* gen. nov. Pleurotomariidae Type: *K. pulchra* sp. nov. p. 355 f. 2 River Karagailyu-Bulak, Chu-Iliisk mountains, Kirgizia, Russia. **A. G. Vologdin**.

†*Orthonychia marblecreekensis* p. 65 pl. 7 f. 22; *O. pentalvea* p. 65 pl. 7 f. 28, 29 spp. nov. Siluro-Devonian. Marble Creek, Thomson river, Victoria, Australia, **Talent & Philip**.

†*Platyceras decorum* p. 64, pl. 7 f. 21; *P. trirotundolobatum* p. 64, pl. 7 f. 26, 27 spp. nov. Siluro-Devonian, Marble Creek, Thomson river, Victoria, Australia, **Talent & Philip**.

†*Platystoma triangularis* sp. nov. Siluro-Devonian. Marble Creek, Thomson river, Victoria, Australia, **Talent & Philip** p. 64, pl. 6 f. 5, 6.

Pleurotomaria teramachii sp. nov. off Tosa south of Bungo Channel, Pacific side of Shikoku Island, Japan **T. Kuroda** (2) Venus 18 4 1955 p. 213 pl. 8 f. 1, 2.; *P. africana* Tomlin comparative table with *P. teramachii* sp. nov., **T. Kuroda** (2).

†*Temnotropis palatina* sp. nov. Trochitenkalk, Triassic, Wiesloch, Germany, **H. Eckert** p. 105 pl. 2 f. 17a, b, 18, 19.

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†*Pellax jejuna* **sp. nov.** Pliocene, Australia, **N. H. Ludbrook** p. 24 pl. 2 f. 9 [nom. nud. op. cit. 77 1954: p. 58.]

†*Spectamen planicarinatum* p. 17 pl. 2 f. 4; *S. praecursor* p. 18 pl. 2 f. 5 **sp. nov.** Pliocene, Australia, **N. H. Ludbrook** [nom. nud. op. cit. 77 1954: p. 58.]

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†*Teinostoma yabei* **sp. nov.** Miocene Noto Peninsula, Japan, **K. Masuda** Tr. Proc. Palaeont. Soc., Japan N.S. No. 20 1955 p. 123 pl. 19 f. 16–18.

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†*Hologyra frentzeni* **sp. nov.** Trochitenkalk, Triassic, Wiesloch, Germany, **H. Eckert** p. 107 pl. 2 f. 22a, b, 23, a, b, 24.

†*Naticella spinosa* **sp. nov.** Trochitenkalk, Triassic, Wiesloch, Germany, **H. Eckert** p. 109 pl. 3 f. 28a–d, 29, 30.

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Neritina Lamarck, 1816, gender feminine, **Direction** 42.

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†*Ampullella peruviana* sp. nov. Jurassic Nasca area Peru, **L. R. Cox** (4) *J. Pal.* 30 5 1956 p. 1181 pl. 127 f. 2, 3.

Bellamya from Java, **E. v. B. Jutting**.

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Cyclophoridae 'type' specimens in the Senckenberg Museum, **A. Zilch**; Types in the Senckenberg Museum (4) figs., **A. Zilch** (2) *Arch. Mollusk. Frankfurt a.M.* 85 4/6 1956 pls. 12, 13.

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†*Pila ovata* from the Quarternary, Tel Aviv, Palestine, **N. Avnimelech**.

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†*Valvata antiqua gigas* "sp. nov." [?var. nov.] Quaternary, lower Kama basin, Russia, **G. Goretzki** p. 33; *V. (Atropidima) wenzi* sp. nov. Vienna, **A. Papp** *Mitt. Geol. Ges. Wien.* 44 1956 p. 110 pl. 4 f. 4, 5.

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†*Viviparus kinelicus* sp. nov. Lower Kama basin Quarternary, Russia, **Goretzki, G. I.** p. 34; *V. brevis* sp. nov. Triassic, Dzhungen depression Russia, **Saidov, M. N.** p. 94; *V. sinensis* sp. nov. Triassic, Dzhungen depression, Russia, **Saidov, M. N.** p. 95; *V. praeglacialis* Don river village Krasni Kut, Russia Quarternary, **Popov, G. I.** (1) p. 34.

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†*Littorinopsis deserti* sp. nov. Cretaceous, Moghara Massif, Sinai Egypt, **I. G. Mahmoud** p. 141 pl. 16 f. 2, 3.

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Austrosina gen. nov. p. 393 Rissoinidae genotype: *Rissoina pulchella* Brazier, 1877; *Austrosina quinia* p. 394 f. 14; *A. evanida* p. 394 f. 15 spp. nov. Christmas Island, Indian Ocean, **C. F. Laseron**.

†*Baicalia obrutschewi*; *B. carinataides* spp. nov. Triassic, Dzhungar depression, Russia, **M. N. Saidov** p. 96.

Bythinella austriaca from mountain springs in Hungary, note on ecology, **Farkas & Vágvolgyi**; *B. (Frasnefeldtia) intermedia* nov. sp. nom. nud. in list p. 22. Austria, **F. Mahler**.

†*Bithynia tentaculata minor* f. nov. Holocene, Kostomlaty on the river Elbe, Bohemia, **J. Petržok** (1) p. 8.

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†*Bithynia cumulata* sp. nov. Triassic, Dzhungar depression. Russia, **Saidov, M. N.** p. 94; *B. paluchella* sp. nov. Triassic, Dzhungar depression, Russia, **M. N. Saidov** p. 96 (description begins as last word on p. 95.)

Bithyniinae, biology of middle European species, **E. Frömming** (4) p. 230-243.

†*Chartroniella saxorum* sp. nov. Lower Cretaceous Trinidad, **L. R. Cox** (2) *J. Paleont.* 28 5 1954 pp. 624 625 pl. 67 f. 2a b, 3a b.

Chrystella gen. nov. Rissoinidae. Type: *C. islandica* sp. nov. Christmas Island, Indian Ocean, **C. F. Laseron** p. 247 f. 111.

Cochliopa lubricella distribution in Hungary, **J. Vágvolgyi**.

Condylia gen. nov. Rissoinidae. genotype: *C. collaris* sp. nov. Howick Group, Queensland, Australia, **C. F. Laseron** p. 418 f. 80, 81.

Contraxiala gen. nov. Rissoinidae. genotype: *C. obliqua* sp. nov. Michaelmas Cay, Queensland, Australia, **C. F. Laseron** p. 421 f. 88.

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Cylonidea gen. nov. Rissoidae genotype: *C. carina* sp. nov. Christmas Island, Indian Ocean, **C. F. Laseron** p. 453 f. 181.

Dardanula difficilis sp. nov. south east of King Island, Victoria, Australia, **C. J. Gabriel** p. 7, f. 5.

Dentrissoina gen. nov. p. 415, Rissoiidae, genotype: *D. thornleyana* sp. nov. p. 415, f. 70, 71 Murray Island, Queensland, Australia, C. F. Laseron.

Dipsotoma gen. nov. p. 416, Rissoiidae, genotype: *Rissoa mercurialis* Watson, 1886 Wednesday Island, Queensland, Australia, C. F. Laseron.

Diala conspicua p. 455 f. 183; *D. fossa* p. 455 f. 184 Michaelmas Cay; *D. premeris* p. 456 f. 185, Thursday Island; *D. planalba* p. 456 f. 187; *D. diffilata* p. 457 f. 190, 191 Bowen; *D. cacumenata* p. 457 f. 188; *D. vestigia* p. 457 f. 189 Hope Island; *D. cento* p. 458 f. 192 Keppel Bay; *D. tumerosa* p. 458 f. 193 20 fm. off Endeavour Reef spp. nov. Queensland, Australia; *D. watsoni* nom nov. for (?) *Barleeia imbricata* Watson, 1886, non *Diala imbricata* A. Adams, 1862, C. F. Laseron.

Discrevinia gen. nov. Rissoiidae, genotype: *D. balba* sp. nov. Christmas Island, Indian Ocean, C. F. Laseron p. 437 f. 140.

Estea rufoapicata lator subsp. nov. p. 63 f. 82; *E. sculpturata* sp. nov. p. 63 f. 81 300 fathoms off E. Otago coast, New Zealand, R. K. Dell; *E. hoggartae* sp. nov. south east of King Island, Victoria, Australia, C. J. Gabriel p. 6 f. 4; *E. lunata* p. 441 f. 147, Bowen; *E. perdigna* p. 441 f. 148 Mast Head Is., Capricorn Group, Queensland, Australia spp. nov. Also included in this genus, *Eulima eurychades* Watson and temporarily *Mucronalia xanthias* Watson, C. F. Laseron.

Eprigrus obesa p. 448 f. 167; *E. truncata* p. 448 f. 168 spp. nov. Darwin, Northern Territory, Australia, C. F. Laseron.

Fractoralla gen. nov. p. 398 Rissoiidae, genotype: *F. praecida* p. 398 f. 27; *F. transita* p. 399 f. 28 Darwin, Northern Territory; *F. decipiens* p. 399 f. 29 Port Curtis; *F. heronensis* p. 399 f. 30, 31 Heron Island, Capricorn Group, Queensland, Australia spp. nov., C. F. Laseron.

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Hydrobia (Hydrobia) testulata p. 113 pl. 7 f. 2-4; *H. (Odontohydrobia) cobessodnfensis* p. 114 pl. 8 f. 15-18 spp. nom., A. Papp Mitt. Geol. Ges. Wien 44 1953.

†*Hydrobia gonduranica* sp. nov. Karros Bed and (Upper Permian) Southern Rhodesia, L. R. Cox (1) Geol. Mag. 90 3 1953 p. 204 text-fig. 1 a-f.

Hydrobiidae, biology of middle European species, E. Frömming (4) p. 206-224.

Isselia polytropia augerea subsp. nov. p. 411 f. 60; *I. lateralis* p. 412 f. 61; *I. undulata* p. 412 f. 62, Michaelmas Cay, Queensland, Australia; *I. incisa* p. 412 f. 63 Christmas Island, Indian Ocean spp. nov., C. F. Laseron.

Lithoglyphinae, biology of middle European species, E. Frömming (4) p. 225-229.

Lucidestea gen. nov. p. 448 Rissoiidae genotype: *L. vitrea* p. 449 f. 169; *L. obesa* p. 449, f. 171, Michaelmas Cay; *L. maculosa* p. 450 f. 172, Lindeman Island; *L. latera* p. 450 f. 173, Bowen; *L. sublacuna* p. 451 f. 175 Mast Head Is., Capricorn Group, Queensland; *L. perforata* p. 449 f. 170, Darwin, Northern Territory spp. nov. Australia, C. F. Laseron.

Lucidinella gen. nov. p. 427 Rissoiidae, genotype: *L. conicera* p. 427 f. 112, 113, Whitehaven Bay; *L. sublevis* p. 428 f. 116 Curtis Island, Queensland spp. nov.; *L. conicera patruelis* p. 428 f. 114, 115 Darwin, Northern Territory subsp. nov. Australia, C. F. Laseron.

Mellitestea gen. nov. p. 452 Rissoiidae genotype: *M. simplex* sp. nov. 5-10 fm. Murray Island, Queensland, Australia, C. F. Laseron p. 453 f. 180.

Merelina queenslandica p. 433 f. 130, Barrier Reef, off Cairns; *M. solida* p. 434 f. 131, 14 fm., Albany Passage; *M. reversa* p. 435 f. 134, Bowen; *M. corruga* p. 436 f. 136, Heron Island, Capricorn Group; *M. goliath* p. 436 f. 137, 138, Hervey Bay, Queensland; *M. sucina* p. 434 f. 132, 133; *M. humera* p. 435, f. 135, Darwin, Northern Territory, Australia; *M. hians* p. 436, f. 139, Christmas Island, Indian Ocean spp. nov., C. F. Laseron.

†*Merelina (Linemera) varisculpta* sp. nov. Pliocene, Australia, N. H. Ludbrook p. 28 pl. 2 f. 11 [nom. nud. op. cit. 77 1954 p. 59.]

Mesodestea gen. nov. Rissoidae genotype *M. resima* sp. nov. Darwin, Northern Territory, Australia, C. F. Laseron p. 451, f. 176.

Micromelania (*Micromelania*) *gobero-*
derfensis f. 121 pl. 5 f. 5-8; *M. (Gonio-*
chilus) breviformis p. 123 pl. 6 f. 8
spp. nov.; *M. (Goniochilus) banatica*
fuchsi subsp. nov. p. 122 pl. 6 f. 9,
A. Papp Mitt. geol. Ges. Wien 44 1956.

Moerchiella persista p. 414 f. 67,
Thursday Island; *M. deleta* p. 414 f. 68,
Port Curtis; *M. volvera* p. 415 f. 69,
Annan River spp. nov. Queensland,
Australia, C. F. Laseron.

Nanadoma gen. nov. p. 447 Rissoidae
genotype: *N. imitoris* sp. nov. Darwin,
Northern Territory, Australia, C. F.
Laseron p. 447, f. 165.

Nobolira orientalis p. 64 f. 75, 130
fathoms, east of the Forty Fours,
Chatham Islands; *N. merelina* p. 65
f. 80, 300 fathoms, off east Otago coast
spp. nov. New Zealand, R. K. Dell.

Obortio columna p. 463 f. 211-214;
O. duplex p. 466 f. 226, Darwin, North-
ern Territory; *O. varicosa* p. 464 f. 220;
O. ambigua p. 465 f. 221; *O. fabrica*
p. 465 f. 222-224, Bowen; *O. crassa*
p. 466 f. 225, Michaelmas Cay, Queens-
land, Australia; *O. rugosa* p. 464 f. 218,
219, Christmas Island, Indian Ocean
spp. nov.; *O. fulva axialis* p. 462 f. 204,
205, Darwin; *O. perparvula progreda*
p. 464 f. 217, Darwin and Murray
Island subsp. nov. Australia, C. F.
Laseron.

Oncomelania nosophora (Robson) Ana-
tomy studies and radular formula, H.
Itagarki; *O. quadrasi* occurrence in the
Philippines, B. Hubendick (1); *Onco-*
melania effects of ultraviolet radiation,
Wong & Wagner.

†*Oonia trinidadensis* sp. nov. Lower
Cretaceous Trinidad, L. R. Cox (2) J.
Paleont 28 5 1954 pp. 624 626 pl. 65
f. 3, 6.

Lartetia rhenana localities in Ger-
many, F. Kiefer.

Linemera solitaria p. 66 f. 77, 130
fathoms, east of the Forty Fours,
Chatham Islands; *L. abrupta* p. 66
f. 78, off east Otago, in 300 fathoms
spp. nov. New Zealand, R. K. Dell.

Palisadia gen. nov. p. 431 Rissoinidae
genotype: *P. subulata* sp. nov. Christmas
Island, Indian Ocean, C. F. Laseron
p. 432 f. 129.

Paludestrina note on nomenclature
and type species, J. Parodiz (5).

Pandalosia gen. nov. p. 391, Rissoini-
dae genotype: *P. excelsis* p. 391, f. 5,
Murray Island, Queensland; *P. darwin-*
ensis p. 391 f. 6, Darwin, Northern
Territory; *P. subulata* p. 392 f. 7, Heron
Island, Capricorn Group, Queensland;
P. oceanica p. 392, f. 8, 9; *P. delicatula*
p. 393 f. 12 Christmas Island, Indian
Ocean; *P. obtusa* p. 392 f. 10, 11,
Michaelmas Cay, Queensland spp. nov.
Australia, C. F. Laseron.

Paradiala gen. nov. Rissoidae geno-
type: *P. supraflecta* sp. nov. 17-20 fm.,
Mast Head Is., Capricorn Group,
Queensland, Australia, C. F. Laseron p.
459 f. 194.

Parashiella gen. nov. p. 439 Rissoidae
genotype: *P. ambulata* sp. nov. Michael-
mas Cay, Queensland, Australia, C. F.
Laseron p. 439 f. 145.

Pellamora reflecta p. 423 f. 94; *P.*
angulata p. 424 f. 95, 96; *P. diminuta*
p. 424 f. 97, 98; *P. truncata* p. 425
f. 100, 101, Darwin, Northern Territory;
P. capitata p. 425 f. 106, 107, Albany
Passage; *P. spiralis* p. 426 f. 108, 109;
P. amplexa p. 426 f. 110; Michaelmas
Cay, Queensland, Australia; *P. mina-*
tura p. 424 f. 99, Port Moresby, New
Guinea spp. nov., C. F. Laseron.

Peripetella gen. nov. p. 400 Rissoini-
dae genotype: *P. queenslandica* p. 400
f. 32, Bowen; *P. immersa* p. 401 f. 33,
Rocky Is., Cape Flattery; *P. linearis* p.
401 f. 34, Heron Is., Capricorn Group
spp. nov. Queensland, Australia, C. F.
Laseron.

Phintorene allanae proxima p. 405
f. 45 subsp. nov. Darwin; *P. apicina*
p. 406 f. 46, 47, Facing Is. Port Curtis;
P. ultima p. 406 f. 48 Albany Passage;
P. caelata p. 406 f. 49, Cape Sidmouth;
P. angusta p. 407 f. 50; *P. digera* p.
408 f. 52, Michaelmas Cay, Queens-
land; *P. emina* p. 407 f. 51; *P. paemula*
p. 408 f. 53, Darwin, Northern Territory
spp. nov. Australia, C. F. Laseron.

Phosinella cyatha sp. nov. p. 404
f. 41-43 Albany Passage, Queensland,
Australia, C. F. Laseron.

Planapexia gen. nov. p. 408 Rissoini-
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410 f. 59, Darwin, Northern Territory;
P. decepta p. 409 f. 55, Curtis Island,

Queensland spp. nov. Australia, C. F. Laseron.

Plenecone gen. nov. p. 402, Rissoiidae, genotype: *P. angulata* p. 402 f. 37 sp. nov. Lindeman Is., Queensland, Australia, C. F. Laseron.

Polamopyrgus jenkinsi, E. A. Smith and its distribution in Lake Windermere, H. P. Moon.; *P. jenkinsi* from Lake Razelm, Dobroudja, first record from Roumania, A. V. Grossu.

Pomatiopsis cincinnatiensis detailed morphology, Schalie & Dundee.

†*Probaicalia* gen. nov. p. 79, Micro-melaniidae genotype: *Probaicalia gerassimovi* (Reis, 1910); *P. hydrobioides* p. 79 pl. 9 f. 4; *P. vitimensis* p. 80 pl. 9 f. 2; *P. prinadae* p. 80 pl. 9 f. 3 spp. nov.; *P. hydrobioides rammelmeyeri* p. 79 pl. 9 f. 6; *P. hydrobioides elongata* p. 79 pl. 9 f. 5 vars. nov.; *P. gerassimovi*; (Reis), comb. nov. p. 80 pl. 9 f. 1; near Lake Baikal, East Siberia, Cretaceous, G. Martinson.

†*Prororthis sinensis* sp. nov. Triassic, Dzhunger depression, Russia, Saidov, M. N. p. 94.

Pyramidelloides pacifica p. 419 f. 82, Darwin, Northern Territory; *P. turris* p. 419 f. 83, Albany Passage; *P. cylindrica* p. 420 f. 84, Michaelmas Cay, Queensland, Australia; *P. viticula* p. 420 f. 85, Christmas Island, Indian Ocean spp. nov. C. F. Laseron.

Pyrgohydrobia st. naumi p. 25 f. 1-5; *P. jablanicensis* p. 26 f. 6-10 spp. nov. Ohrid, Jugoslavia, P. Radoman.

Rissoa revision of some of the species, P. Mars (2).

Rissoina notes on New Zealand species, A. K. Hipkins; *R. polytropa* Hedley, 1899, is now removed to *Isselia* Schmeltz, C. F. Laseron p. 411.

†*Rissoina tinela* sp. nov. Pliocene, Australia, N. H. Ludbrook p. 31 pl. 2 f. 19 [nom. nud. op. cit. 77 1954 p. 59.]

Saltraticula nom. nov., p. 445, for *Saltatrix* Laseron, 1950. Genotype: *Epigrus protractus* Hedley; *S. ballerina* p. 446 f. 162, Whitehaven Bay; *S. stringera* p. 446 f. 163; *S. improrsa* p. 446 f. 164 Noosa Head spp. nov. Queensland, Australia, C. F. Laseron.

Schwartziella lata sp. nov. Christmas Island, Indian Ocean, C. F. Laseron p. 390 f. 4.

Scrobs tropica p. 442 f. 151; *S. incipiens* p. 443 f. 153, Heron Is., Capricorn Group; *S. compressa* p. 442 f. 152, Michaelmas Cay; *S. fulcra* p. 443 f. 154, 155, Lindeman Island; *S. oblata* p. 444 f. 156, Noosa Head spp. nov. Queensland, Australia, C. F. Laseron.

Stenothyra from Java, E. v. B. Jutting.

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†*Turboella praeovarensis* p. 28 pl. 2 f. 14; *T. elimatae* p. 29 pl. 2 f. 15 sp. nov. Pliocene, Australia, N. H. Ludbrook [nom. nud. loc. cit. 77 1954 p. 59.]

Vitricithna gen. nov. Rissoiidae. Type: *Cithia marmorata* Hedley; *V. relativa* p. 452, f. 179 sp. nov. Michaelmas Cay, Queensland, Australia, C. F. Laseron.

Zebina heronensis p. 429 f. 117, Heron Is., Capricorn Group; *Z. nitens* p. 429 f. 119, 120, Michaelmas Cay, Queensland, Australia; *Z. hebes* p. 430 f. 121, Port Moresby, New Guinea; *Z. isolata* p. 430 f. 122; *Z. acicula* p. 430 f. 123, 124; *Z. linearis* p. 430 f. 125; *Z. constricta* p. 431 f. 126 Christmas Island, Indian Ocean; *Z. inflata* p. 431 f. 127, 128, Rocky Is., Cape Flattery, Queensland, Australia spp. nov., C. F. Laseron.

Zymalata gen. nov. p. 416, Rissoiidae. Genotype: *Z. concinna* p. 417, f. 75 sp. nov. Michaelmas Cay, Queensland, Australia. Genus also includes *Rissoina triangularis* Watson and *R. inermis* Brazier, C. F. Laseron.

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Amnipila gen. nov. Potadominae genotype: *A. pila* (= *Pachycheilus pila* Pilsbry & Hinkley, 1910). San Luis Potosi, Mexico, H. A. Pilsbry (3) p. 38 Pl. 4 f. 7, 8, 9 text-f. 4.

†*Ampullina chalaguarensis* sp. nov. Maestrichtian La Chalaguirre nr. Fabas S.W. France, G. Termier Bull. Soc. Hist. nat. Toulouse 89 3-4 1954 p. 335 figs. 22.

Aylacostoma chlorotica p. 45 f. 1; *A. stigmatica* p. 47 f. 2 spp. nov. upper Paraná river, Paraguay, M. I. H. Scott.

†*Campanilopsis* gen. nov. for *Nerinea margaritifera* d' Arch. **P.-H. Fischer** (3) *J. de Conchyliol.* Paris 96 1 June 1956 p. 3 and p. 10.

Cerithiacea, on the open Pallial oviducts, figs., **J. Johansson**.

Cerithidea djadjariensis *C. rhizophorarum*, spawning, **T. Habe** (3).

†*Cerithinopsis arnaudi* sp. nov. Turonian, S.W. France, **G. Termier** Bull. Soc. Hist. nat. Toulouse 89 3-4 1954 p. 367 f. 61.

Cerithium reticulatum food and feeding habits in Black Sea forms **Gajevskaja**.

Cerithium vulgatum anatomy of genital organs, **Johansson, J.**; *Cerithium* occurrence near Olomouc, Czechoslovakia, **V. Kalabis**.

†*Cerithium* (*Ptychocerithium*) *procrenatum* from the Miocene of Slovakia, **J. Svagrovský**; *C. livernantensis* p. 359 f. 50 Campanian; *C. (Pyræzus) arnaudi* Cenomanian p. 360 f. 51; *C. (P.) shoelleri* p. 360 f. 52 Cenomanian; *C. (P.) belestensis* Maestrichtian p. 364 f. 58; *C. (P.) chalaquerensis*; p. 365 f. 59 Maestrichtian; spp. nov. Upper Cretaceous S.W. France, **G. Termier** Bull. Soc. Hist. nat. Toulouse 89 3-4 1954; *C. alulovići* sp. nov. Senonian Serbia, **O. Pejović** (1) Zborn Redova geol. Inst. Beograd 5 1953 p. 81 pl. 1 f. 9.

†*Cirsocerithium manzourianum* sp. nov. Cretaceous. Moghara Massif, Sinai Egypt, **I. G. Mahmoud** p. 145 pl. 16 f. 12.

Cleopatra hemmingi sp. nov. Italian Somaliland, 18 miles west of Beles Cogani, in large shallow pools, **B. Verdcourt** (see Hemming & Verdcourt) p. 60 f. 3, 4c, e.

†*Cossmannia nascaensis* p. 1181 pl. 127 f. 4-6; *C. peruviana* p. 1182 pl. 127 f. 7-8; spp. nov. Jurassic Nasca area Peru, **L. R. Cox** (4) *J. Pal.* 30 5 1956.

Doryssa geijskesi sp. nov. Makambo Island, Coppename River, Surinam, **T. Pain** (3) *Basteria* 20 4/5 Dec. 1956 p. 99 [nom et fig.] p. 102.

Melanella intermedia anatomy of genital organs, **J. Johansson**.

Melania cancellata Say from India not *N. America*, **W. J. Clench** (2).

†*Melania escheri* from the Pliocene of the Salaj basin, Roumania, **M. Paucă**; *M. ariegensis* sp. nov. Maestrichtian Bilesta S.W. France, **G. Termier** Bull. Soc. Hist. nat. Toulouse 89 3-4 1954 p. 338 f. 26.

Melanoides tuberculata and *Chaetogaster*, **F. A. H. Bayer**; *M. tuberculata* (Müll.) digestion and production of H_2SO_4 , **C. R. Fish**; *M. tuberculatus* and Allopolyploidy, **J. Jacob**; *M. tuberculatus* parasitic effects in the digestive gland, **Lal & Premvati**.

Melanopsis dufouri morphology and biology, **E. Frömming** (1); *M. martiniana* occurrence near Olomouc, Czechoslovakia, **V. Kalabis**.

†*Melanopsis impressa pseudonarzo-lina* p. 132 pl. 9, f. 14-18; *M. impressa posterior* p. 133 pl. 9 f. 19-23; *M. fossilis pseudoimpressa* p. 135 pl. 11 r. 5-8 subsp. nov. *M. tortispina* p. 147 pl. 12 f. 18-20; *M. scalariformis* p. 153 pl. 3 f. 27-28; spp. nov., **A. Tapp** Mitt. Geol. Ges. Wien 44 1953.

Mendax nucleoproducta sp. nov. east of the Forty Fours, Chatham Islands, New Zealand, in 130 fathoms, **R. K. Dell** p. 68 f. 105.

†*Mesalia astrei* sp. nov. Maestrichtian Bélesta S.W. France, **G. Termier** Bull. Soc. Hist. nat. Toulouse 89 3-4 1954 p. 346 f. 35.

†*Metacerithium* (?) *tuberculatum* sp. nov. p. 144 pl. 16 f. 11 text-f. 76, Cretaceous Moghara Massif, Sinai, Egypt, **I. G. Mahmoud**.

†*Nerinea mandhourensis* p. 26 pl. 2 f. 1 Gebel Mandhour; *N. mistanensis* p. 28 pl. 2 f. 7; *N. pre-olissoponensis* p. 31 pl. 1 f. 9, El-Mistan, Albian; *N. hallalensis* p. 29 pl. 1 f. 4, Gebel Hallal; *N. dentiloba* p. 27 pl. 1 f. 8; *N. sinaitica* p. 32 pl. 2 f. 3, Cenomanian, Spp. nov. Cretaceous, Sinai, Egypt, **G. H. Awad**; *N. margaritifera* d'Arch. the genotype of *Campanilopsis* [q.v.], **P.-H. Fischer** (3); †*Nerinea* cf. *byzacenica* Paving; *N. zumoffeni* Delpy; *N. coquandi* Orbizug; *N. cf. salignaci* Coquand; *N. aptiensis* Pict. & Cacufs; *N. prefleuriani* Delpy, of the Lower Cretaceous N. Africa, **G. & J. Glaçon**; *N. vagditi* (La Mottillet) (emend) sous-esp. *ce sublimensis* sub sp. nov., **Mongian Trouvé**, Bull. Soc. geol. Fr. 6 3 1-3 1953 p. 230 pl. iii f. 2; *N. verdonensis*

p. 227, pl. iii f. 1; *N. granulifera* p. 229 pl. iii f. 4 and text fig. 2a spp. nov. Valanginian Grand Casion du Verdon, Mougín & Trouvé Bull. Soc. geol. Fr. 6 3 1/3 1953.

†*Nerinella lahfanensis* sp. nov. Aptian, Cretaceous. Bir Lahfan, Sinai, Egypt, G. H. Awad p. 24 pl. 1 f. 5; *N. caballensis* sp. nov. Jurassic Nasca area Peru, L. R. Cox (4) J. Pal. 30 5 1956 p. 1182 pl. 127 f. 9-12.

Pachychilus pasionensis sp. nov. Peten and Alta Vera Paz, Guatemala, H. A. Pilsbry (3) p. 34 pl. 4 f. 4, 5.

Paramendax subapicina sp. nov. 130 fathoms, east of the Forty Fours, Chatham Islands, New Zealand, R. K. Dell p. 69 f. 106.

†*Parastrophia garganica* sp. nov. Quaternary. Punta delle Pietre Nere, Foggia, Italy, M. Moncharmont Zei p. 120 f. 1-13.

†*Planaxis simplex* sp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, I. G. Mahmoud p. 148 pl. 16 f. 23-25.

Plotia Roeding, 1798, suppressed under the Plenary Powers, Opinion 386.

†*Potamides tricarinatus* occurrence at Saint Owen à Herblay, L. Feugueur; *P. (Pirenella) plicatus* and *P. (Tympanotonus) margaritaceus* from the upper Oligocene of Hungary, L. Strausz; *P. (Tympanotonus) margaritaceus* Br. and *P. (Pirenella) plicatus* Being very common in the Upper Oligocene of Hungary, figs., L. Strausz (1); *P. reticosum maurensensis* var. nov. p. 358 f. 47 Maestrichtian; *P. occitanicum* sp. nov. p. 358 f. 49 Maestrichtian Auzas S.W. France, G. Termier Bull. Soc. Hist. nat. Toulouse 89 3-4 1954.

Potamididae from Java, E. v. B. Jutting.

†*Pyraxus aegyptiacus* sp. nov. p. 145, pl. 16 f. 13, 14; *P. sexangulatus* Zekeli, "prémution costata nov. premut." p. 146 pl. 16 f. 15; Cretaceous. Moghara Massif, Sinai, Egypt, I. G. Mahmoud.

†*Stomatopsis? arnaudi* sp. nov. Cenomanian Rochefort, S.W. France, G. Termier Bull. Soc. Hist. nat. Toulouse 89 3-4 1954 p. 337 f. 25.

Thiaridae from Java, E. v. B. Jutting.

Torquesia Douvillé 1929 proposed addition to the "Official List of Generic

Names in Zoology" and proposed designation of *Turritella granulata* Sowerby (J. de C.) 1827, as the type species, J. Marwick.

Triphora perversa anatomy of genital organs, J. Johansson; *T. medinae* sp. nov. Punta Carretas, Montevideo, Uruguay, J. Parodiz (4) p. 59 fig.

†*Turritella arnaudi* sp. nov. Maestrichtian Bramfort, S.W. France, G. Termier Bull. Soc. Hist. nat. Toulouse 89 3-4 1954 p. 346 f. 34. *T. gradata* sp. nov. Eocene? Ferghana, Russia, A. K. Alexeiev p. 30 pl. 5 f. 4-10; *T. (Haustator) slanskyi* sp. nov. Lower Eocene Dahomey Ph. Brébion Bull. Mus. Hist. nat. Paris (2) 27 5 1955 p. 414; *T. donkantiensis* Paleocene Dahomey, Ph. Brébion (1) Bull. Mus. Hist. nat. Paris (2) 27 3 1955 p. 244 figs.; *T. incisaeformis* sp. nov. Miocene, Hungary, I. Csepregy-Meznerics p. 444 pl. 2 f. 36.

Tympanotonus fuscatus (L.) On the Anatomy; figs., J. Johansson.

Vermetus cristatus biondi in the western Mediterranean and plates form, R. Molinier.

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Capulus ungaricus note on biology, M. Sharman.

†*Capulus hemiastericolus* sp. nov. as a commensal with *Hemiaster batnensis* preliminary note, R. Devries, C.R. Soc. geol. Fr. 7 1952, 1115 text-fig.

Crepidula fornicata Quantitative aspects of filter feeding, C. B. Jorgensen; *C. fornicata* biology and distribution in Essex waters, P. Walne (1).

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†*Arrhoges (Monocyphus) aegyptiacum* sp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, I. G. Mahmoud p. 150 pl. 17 f. 10-14.

†*Dientomochilus arnaudi* sp. nov. Sentonian, S.W. France, G. Termier Bull. Soc. Hist. nat. Toulouse 89 3-4 1954 p. 374 f. 68, 69.

Lambis violacea and *L. sebae*, newly recorded from Indonesian seas, **L. J. Butot**.

†*Pterodomta elajans* sp. nov. Campanian, S.W. France, **G. Termier** Bull. Soc. Hist. nat. Toulouse 89 3-4 1954 p. 376 f. 7a.

Strombidae keys and Lists, **Anon. (7)**.

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†*Strombus spinosus minihagali* subsp. nov. Miocene, Minihagal Kanda, Ceylon, **P. Deraniyagala** p. 3 pl. 2 f. 1c, d, 2b.

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†*Natica* and its allied group. Note on Japanese Tertiary and other forms, **K. Hirayama** p. 117; *N. bevelandensis* sp. nov. shell bed in the Westerschelde near Eidewoursdijk, Post-Pleistocene Holland Pouderoyan Basteria 20 4/5 Dec. 1956 p. 78.

Naticidae of the West Coast of America and some problems, **J. Q. Burch (3)**; Naticidae of New Caledonia Anatomical studies, figs., **J. Risbec (1)**.

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†*Erato laevis punctata* subsp. nov. Miocene Hungary, **I. Csépreghyné-Meznerics** p. 445 pl. 4 f. 4 5.

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Pedicularia (Pediculariona) stylasteris Hedley var. notes on this and allied fauna, **T. Habe (5)**.

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†*Phalium kanmonensis* sp. nov. Tertiary, Watase, Hikoshima, Yamaguchi Prefecture, Japan, **K. Hirayama** p. 121, pl. 8 f. 10, 11.

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†*Claviscala livernantensis* sp. nov. Campanian Livernant S.W. France, **G. Termier** Bull. Soc. Hist. nat. Toulouse 89 3-4 1954 p. 350 f. 38.

†*Confusicala arnaudi* sp. nov. Turonian S.W. France, G. Termier Bull. Soc. Hist. nat. Toulouse 89 3-4 1954 p. 351 f. 39.

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Papyriscala latifasciata anatomical study (fig. of radula), I. Taki p. 75 pl. 13 f. 2, 4; pl. 16; pl. 17 f. B.

†*Scala minihagali* sp. nov. Miocene, Minihagal Kanda, Ceylon, P. Deraniyagala p. 3 pl. 2 f. 2c.

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Mucronalia nidorum sp. nov. from "Triton" dredgings off Palm Beach, Florida in 25 fathoms domiciled in spines of sea urchin, H. A. Pilsbry (1) Nautilus 69 4 Ap. 1956 p. 110 f. 4-8.

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†*Mitra yokoyamai* nom. nov. for *M. ebenus*, Yokoyama, 1920 (not of Lamarck), Y. Otuka p. 303.

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†*Spinaspira* subgen. nov. of *Baryspira* Olividae: Type: *B. (S.) stortha* Olson sp. nov. Miocene, New Zealand, O. P. Olson p. 17.

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†*Brachytoma takeokensis* sp. nov. Pliocene, Tomiya, Japan, Y. Otuka p. 307 f. 18.

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†*Clavatula neogradata* nom. nov. for *gradata* Dollf. and Dautz. 1886 non DeFrance in Bellardi p. 18 pl. iii f. 10a b, M. Glibert Mem. Inst. sci. nat. Belg. No. 129 1954.

†*Clavus* (*Crassispira*) *powelli* p. 26 pl. iv f. 12a b; *C. (Cr.) staringi* p. 30 pl. iv f. 15; spp. nov. Miocene, Belgium, M. Glibert Mem. Inst. sci. nat. Belg. No. 129 1954.

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†*Conus* (*Leptoconus*) *asphaltodes* sp. nov. Mio-Pliocene Waisioe Buton Malay Arch., C. Beets Leid. geol. Meded. 17 1953 p. 251 pl. 1, f. 1-2.

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†*Cymatosyrinx hosonaga* p. 305 f. 10 Pliocene, Tomiya, Japan; *C. hoteli* p. 305 [in text] f. 6, living form from the sea of Japan, spp. nov., Y. Otuka.

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†*Loramko?* *akahida* p. 308 f. 15; *L.?* *tomiyaensis* p. 308 f. 17 spp. nov. Pliocene, Tomiya, Japan, Y. Otuka.

†*Mangelia turonensis decemcostata* forma nov. p. 51 pl. vi f. 108; *M. t. simplicior* Peycot, M. Glibert Mem. Inst. sci. nat. Belg. No. 129 1954.

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†*Mitromorpha* (*Mitrihara*) *dollfusi payroti* forma nov. p. 45 pl. vi f. 3; *M. (Mitrihara) cancellata dautzenbergi* forma nov. p. 46 pl. vi f. 5; M. Glibert Mem. Inst. sci. nat. Belg. No. 129 1954.

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Pleurotoma (*Pleurotomella*) *tcherniai* sp. nov. Terre Adélie, J. M. Gaillard (2) Bull. mus. Hist. nat. Paris (2) 26 6 1955 p. 682 text-fig.

Rhizoconus (?) *hirasei* sp. nov. Kashiwajima, Tosa, Japan, T. Kuroda (1) Venus 19 1 1956 p. 3 text-fig. 10.

†*Spirotropis* (*Typhilomangelia*) *kazusensis* sp. nov. p. 306 f. 13; *S. (T.) kazusensis inflatus* subsp. nov. p. 307 f. 14 Pliocene, Tomiya, Japan, Y. Otuka.

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†*Hyolites totoralensis* sp. nov. Cambrian. El Totoral, Mendoza, Argentina, C. Ruseoni (1) p. 116 f. 5.

†*Middalya* gen. nov. of Atlantidae genotype *johnstonei* sp. nov. Lower Permian Western Australia, **J. M. Dickins** Bull. 29 Com. Aust. dep. Nat. development Min. res. Geol. Geoph. 1956 p. 36 pl. vi f. 1-7 text-fig. 3.

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Planorbarius corneus (L.) alteration of spermatozoides, **F. Alaphilippe**; *P. corneus* use of radioisotopes in metabolic studies, with reference to molluscicide action, **Azevedo & Gomes**; *P. corneus* and *P. metidjensi*, use of chromosome numbers in classification, **Azevedo & Gonçalves**.

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Radix auricularia and *R. peregra* variations in successive generations, **C. Boettger**.

†*Radix ovata minor*, Budňany on the Berounka river; *R. ovata minutissima*, Ünětice, ff. nov. Holocene, Bohemia, **J. Petržok** (1) p. 8.

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†*Stagnicola saratogensis* sp. nov. North Park formation, Miocene of Wyoming, **L. S. Russell** J. Pal. 30 5 1956 p. 1260 text-fig. 1.

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Onchidella indolens from Brazil 76-81 pl. 23; *O. remanei* sp. nov. p. 81 pl. 24 f. 13-18, Tenerife, **E. & E. Marcus** (1); *O. souriei* sp. nov. Cap Blanc (Baie de l'Étoile) Tunisia, **M. Gabe & M. Prenant** Bull. Inst. franc. Afr. noire 17A 1 1955 p. 91 f. 1-7.

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Barcania gen. nov. Clausiliidae Alopinae; genotype *Clausilia bengasiana* Gambetta, **R. A. Brandt**, Arch. Molluskenk. Frankfurt a.M. **85** 4/6 121 pl. 9 f. 1 text-fig. 1; *Barcania (Barcania) nizeli* p. 124; pl. 9 f. 2 fig. 2-4; *B. (B.) sasaensis* p. 126 pl. 9 f. 3 text-fig. 5; *B. (B.) kaltenbachi* p. 128 pl. 9 f. 4 text-figs. 6-7; spp. nov. *B. (B.) k. apolloniana* subsp. nov. p. 132 pl. 9 f. 6 text-fig. 8; *B. (B.) klugi* p. 133 pl. 9 f. 7 text-fig. 9; *B. (B.) nagaensis* 137 pl. 10 f. 11 text-fig. 11 spp. nov. Cyrenaica, pls. 9 10; *B. kaltenbachi albaensis* p. 131 pl. 9 f. 5; *B. klaproczii gahhami* p. 136 pl. 10 f. 9; *B. klaproczii gambettae* p. 137 pl. 10 f. 10; subsp. nov. Cyrenaica, **R. A. Brandt** Arch. Molluskenk. Frankfurt a.M. **85** 4/6 1956.

Boninena gen. nov. Enidae Type species: *Buliminus callistoderma* Pilsbry Japan, **T. Habe (6)** p. 265 f. 3.

†*Chondrina avenacea minor*; *O. avenacea elongata* ff. nov. Hostfm, Bohemia, Holocene, **J. Petrbock (1)** p. 8.

Clausilia Draparnaud, "[1805]", gender feminine, **Direction 42**; *C. dubia* Deap. 2200 feet Highcup Sill; *C. rugosa* in the Dumfriesshire Cheviots to 1100 feet, **E. Blezard**.

Cochlicopa nitens (Kokeil) Gallenstein and *C. minima* Siemashko, usually considered as varieties of *C. lubrica* (Müller) are two good species, **A. Nilsson**.

Cochlodina laminata albanica subsp. nov. Albania, **S. Jaekel** (See Jaekel and Meise) p. 28 f. 2.

Delima ornata note, **V. Hudec (1)**.

Ena montana (Draparnaud) at Little Munden, Hertfordshire, **L. Lloyd-Evans**.

Euphaedusa cumingiana recondita note on anatomy, **F. Loosjes (2)**.

Gracilinena aequistriata sp. nov. Valle de Chanchamayo on the highway from Hacienda Naranjal near the village San Ramón to the mine "Pichita-Caluga", about 1300 m. probably, Peru, **W. Weyrauch (1)** Nautilus **69** 4 p. 110 pl. 6 f. 2.

Herilla excedens albanica subsp. nov. Korca, Albania, **S. Jaekel** (see Jaekel and Meise) p. 29 pl. 1 f. 3.

Laciniaria (Denticularia) denticulata sprattiana nom. nov. for *Clausilia denticulata spratti* Boettger 1883 non Pfeiffer 1846, **K. L. Pfeiffer** Archiv. f. Moll. **84** 4/6 1955 p. 153.

Leucochila von Martens, 1860, gender feminine, **Direction 42**.

Leucostigma leucostigma from Tropical East Africa, **C. Boettger (4)**.

Luchuena gen. nov. Enidae. Type species: *Buliminus eucharistus* Pilsbry. Genus also includes *L. reticulata* (Reeve) from Amami and Okinawa; *L. taiwanica* (Moellendorff) from Taiwan, Japan, **T. Habe (6)** p. 265 f. 1, 12.

Nenia (Columbinia) zischkai sp. nov. Yungas de Palmar, 700 m. typical rain forest, Bolivia, **W. Weyrauch (1)** Nautilus **69** 4 Ap. 1956 p. 113 pl. 6 f. 3 3a; *Nenia* in Argentina, **Anon. (2)**; *N. argentina* H. Scott in the Argentine, **Anon. (3)**.

Papillifera bidens from Tropical East Africa, **C. Boettger** (4).

Paraphaedusa minahassae, first record from New Guinea, **F. Loosjes** (1).

Pupilla alpicola found in Czechoslovakia, **V. Ložek** (3).

†*Pupilla slovenica* sp. nov. Pleistocene Sárovice, Hron river, South Slovakia, **J. Petrbock** (2). p. 92 text-f. 1.

Temesa pilsbryi sp. nov. El Infiernillo Rio Rimac 3360–3370 m. road from Lima nr. Oroya, Peru, **W. K. Weyrauch** (2) Arch. Molluskenk. Frankfurt a.M. 85 4/6 1956 146 pl. 11 f. 1–4.

Torbana subgen. nov. of *Barcania* q.v. Clausiliidae subgenotype *Barcania* (*Torbana*) *pabsti* Cyrenaica **R. A. Brandt** Arch. Molluskenk. Frankfurt a.M. 85 4/6 1956 p. 140 pl. 10 f. 13 text-figs. 14–15.

Truncatellina strobili first record from Hungary, **J. Vágvölgyi**.

Vertigo substriata from Western Bohemia, **V. Ložek** (4); *Vertigo ronneyensis* not specifically distinct from *Vertigo aretica*, **H. W. Waldén**.

†*Vertigo praecoquis* sp. nov. North Park formation, Miocene of Wyoming, **L. S. Russell** J. Pal. 30 5 1956 p. 1262 text-fig. 4.

Yakuena gen. nov. Enidae. Type species: *Ena nesiotica* Pilsbry et Hirase Japan, p. 264 f. 11 Genus also includes *Y. hachijoensis* (Kuroda) from Hachijojima, **T. Habe** (6).

Zebrina (*Subzebrinus*) *drangiana* sp. nov. Bashgul-Tal, Nuristan, eastern Afghanistan, **S. Jaekel** (1) p. 344 f. 2, 3.

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Achatina fulica occurrence of disease, **A. Mead**; *A. fulica*, a criticism of Dr. Mead's paper, *Nautilus* 69 2 57, **C. E. Pemberton**.

Achatininae in the Muséum de Paris, **M. Denis**.

Archachatina (*Tholachatina*) *saskai* p. 345 f. 1–3 text-f. 1–3; Ihagana Forest, Iringa; *A. (T.) gebhardti* p. 351 f. 4–6, text-f. 5, 6. Mufindi, Iringa spp. nov. Tanganyika, E. Africa, **H. Knipper**.

Hohenwarthia orghidani sp. nov. Roumania, **A. V. Grossu** (2) p. 1579 f. 1.

Lamellaxis gracilis living in greenhouses, **E. Karlin**.

Limicolariopsis wagneri sp. nov. p. 353 f. 7–10, Loliondo, Tanganyika, E. Africa, **H. Knipper**.

Opeas pumilum living in greenhouses, **E. Karlin**.

Rumina decollata influence of environment, **E. Frömming** (2).

Synapterpes (*Promoussonius*) *propinquus* sp. nov. Vulcano Puraco, Colombia, **T. E. Crowley** J. Conch. London. 24 4 July 1956 144 pl. 6.

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Araucania twomeyi gen. et sp. nov. Endodontidae, Rio Pascua, southern Chile, **J. Parodiz** p. 17 fig.

Oleacina Röding, 1798, gender feminine, **Direction** 42.

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Acutidens subgen. nov. of *Polygyra* Say Type: *P. acutedentata* (W. G. Binney) Polygyridae, **H. A. Pilsbry** (3) p. 26.

Agriolimax reticulatus electrical activity in pedal ganglion, **Hughes & Kerkut**; *A. reticulatus* sensitivity of pedal ganglion to osmotic pressures, **Kerkut & Taylor**; *A. reticulatus* (Müller) feeding on carrion, **G. W. Pitchford**; *A. sibiriensis* [sp. nov.] form of so called "*Limax hyperboreus*" from Jakutsk, **H. W. Waldén** (1) Arkiv. f. Zool. (2) 10 5 1956 p. 354; *A. altaicus transestoriensis* forma nov. from Jenissei, **H. W. Waldén** (1) Arkiv. f. Zool. (2) 10 5 1956 p. 356 [nom et figs.] and p. 361; *A. reticulatus* colour variation, **B. Wood**.

Anademos altivagus (Theobald). Origin of Golgi dictyosomes, figs., **Nath & Chopra**; *A. altivagus* morphology of golgi bodies, **E. Rishi**.

†*Anguispira holroydensis* sp. nov. North Park formation, Miocene of Wyoming, **L. G. Russell** J. Pal. 30 5 1956 p. 1262 text-fig. 3.

Arion rufus tentacular regeneration, **M. Chétail**; *A. ater* sensitivity of pedal ganglion to osmotic pressures, **Kerkut & Taylor**; *Arion* taste and scent senses, **R. Kittel**; *A. circumscriptus* Johnson, *A. rufus* L. *A. subfuscus* Drap., *A. hortensis* Fér., *A. intermedius* Normand: genital organs, figs., **M. Lamesch**; *A.*

rufus germinal regeneration after castration, **P. Laviolette** (1); *A. rufus* genital system anatomy, figs., **P. Laviolette** (2); *Arion rufus* regeneration experiments, **P. Laviolette** (3).

†*Arion kinkelini* and *A. hochheimensis* notes on fossil species described by Wenz 1911, **H. Bräm**.

Baiaplecta **nom. nov.** = *Pangania* Laidlaw Proc. malac. Soc. 20 (2) 83 non *Pangania* Poppius 1914 Acta Soc. Sci. Fenn. 44 (3) 47 Hamiptera; **F. F. Laidlaw**, Arch. Molluskenk. Frankfurt a.M. 85 1/3 1956 p. 83.

Bulines from Portuguese Overseas provinces, **Azevedo & Medeiros**.

Charopa coma variation in the shell, **H. E. Whitten**.

Corilla lesleyae **sp. nov.** Ceylon, Ullswater Estate near Kitulgala, 2000 ft., **G. A. S. Barnacle** J. Conch. 24 3 Feb. 1956 95 pl. 4.

Daudebardia brevipes in Bergen, **W. R. Schlickum**.

Deroceras reticulatum (Müll.) *D. agreste* (Müll.), genital organs, figs., **M. Lamesch**.

Discus brunsoni Berry, in McDonald Cirque, Mission mountains, western Montana, **R. A. Brunson**.

Erymodon **subgen. nov.** of *Polygyra* Say Type: *P. ventrosula* (Pfr.) Polygyridae, **H. A. Pilsbry** (3) p. 20.

Helicodiscus (*Hebetodiscus*) *singleyanus inermis* **H. B. Baker**, figures of shell and radula and map of distribution in Europe, **J. G. J. Kniper** Arch. Molluskenk. Frankfurt a.M. 85 4/6 163-169.

Lehmannia marginata Müll. genital organs, fig., **M. Lamesch**.

Limax Linn. 1758, masculine gender, **Direction 42**.

Limax scent and taste senses, **R. Kittel**; *L. flavus* **L. L. lencophaeus**; *L. maximus* **L.**; *L. albipes* **Dam** and **Moelt**, **M. Lamesch**; *L. cinericaniger* **Wolf**. Genital organs, fig., **M. Lamesch**; *L. marimus* genital system, figs., **P. Laviolette** (2); *L. duplex* from the Tamborin grotto, Como, Italy, **C. Maviglia**; *L. hyperboreus* **Westerlund**, Notes from Siberian specimens, **H. W. Waldén** (1).

†*Limax* fossil found in a cave in the Urio valley, Como, Italy, **Cadeo & Senna**.

Malacolimax tenellus Nilsson, genital organs, fig., **M. Lamesch**.

Megapallifera **subgen. nov.** type *Pallifera mutabilis* Hubricht (1951 Naut. 65, 57), **L. Hubricht** (2) Nautilus 69 4 April 1956 p. 126.

Mesodon normalis (Pils.) a distinct species, **L. Hubricht** (3).

Milax rusticus Müll. genital organs, figs., **M. Lamesch**.

Milax sowerbii anatomy, fig., **A. R. Schouten**.

Monophysis **subgen. nov.** of *Polygyra* Say Type: *P. behri* (Gabb) Polygyridae, **H. A. Pilsbry** (3) p. 25.

Nipponarion **gen. nov.** genotype *N. carinatus* **sp. nov.** His-amatsu-yama, Tottori City, Japan, **Yamaguchi & Habe** Venus 18 4 1955 pp. 237, 238.

Oxychilus Fitzinger, 1833, validated, gender masculine, **Opinion 431**.

Oxychilus glaber note on the radula **K. Märkel** p. 457 f. 6; *O. cellarius* (Müll.) a sinistral example from Sweden, **H. Schlesch** (1); *O. draparnaldi*, **H. A. Schmidt**.

Polygyra bicruris insculpta p. 21; *P. hindsii heteroea* p. 24 pl. 2 f. 2 **subsp. nov.** Nayarit; *P. idiogenes* p. 30 pl. 3 f. 1, 1a, b **sp. nov.** Northern Mexico; *P. (Solidens)* p. 27; *P. (Acutidens)* p. 26; *P. (Monophysis)* p. 25; *P. (Erymodon)* p. 20 **subgen. nov.**, **H. A. Pilsbry** (3); *P. scintilla* **sp. nov.** Wallacy Co. along the railroad 15 m. N. of Raymondville, Texas, **Pilsbry & Hubricht** Nautilus 69 Jan. 1956 p. 94 pl. 5 f. 3, 3a.

†Slug granules from post glacial deposits in the Lea Valley, **J. F. Hayward**.

Solidens **subgen. nov.** of *Polygyra* Say Type: *P. anilis* (Gabb) Polygyridae, **H. A. Pilsbry** (3) p. 27.

Systrophia stenogyra zischkai a new locality in Bolivia, **W. Blume**; *S. (Systrophia) siolii* **sp. nov.** Serra Formosa nr. Mulata, Monte Alegre, Staat. Pará, Brasil, **F. Haas** Archiv. f. Mollusk. 84 1/3 1955 103 text-figs 4-6.

Ventridens intertextus eutropis **Pilsbry** living in Cheatham Co., Tennessee, **M. C. Teskey**.

Vitrea contracta from Central Bohemia, **V. Ložek (5)**.

Vitrina Draparnaud "[1801]", gender feminine, **Direction 42**.

Vitrina the Palaearctic species and *V. pellucida islandica* subsp. nov. N.W. Island Isaffjörður, **L. Forcart** Archiv. f. Mollusk **84** 4/6 1955 p. 156 pl. 12 f. 3, 6.

Vitrinidae in the Dolomites, **L. Forcart (1)**.

Zonitoides arboreus living in green-houses, **E. Karlin**.

ARIOPHANTACEA

Degneria subgen. nov. of *Helicarion*, for *Helicarion boranensis* Piersanti Corydon Memorial Museum, Nairobi, **Verdcourt** Proc. Malac. Soc. London **32** 1/2 Aug. 1956 p. 72 text-fig. 1.

Macrochlamys (*Parvatella*) *ghorbansdensis* sp. nov. Ghorband-Tal, Afghanistan, **S. Jaeckel (1)** p. 347 f. 5, 6.

Videnoida subgen. nov. of *Videna* for *Trochomorpha gouldiana* Pilsbry, **T. Habe (2)** Venus **18** 4 1955 pp. 231-234 f. 2.

ACAVACEA

Strophocheilidae of the Museum National d'Histoire naturelle de Paris, **E. Salmon**.

Strophocheilus (*Strophocheilus*) *pudicus roseolabris* p. 33 pl. 3 f. 3; pl. 24 f. 3; *S. pudicus debilis* p. 34 pl. 16 f. 1; pl. 17 f. 2; *S. planidens fusoides* p. 43 p. 9 f. 2; pl. 12 f. 2; pl. 25 f. 2 subspp. nov. Brazil; *S. atavus* p. 47 pl. 8 f. 3 sp. nov. Uruguay; *S. (Megalobulimus) oblongus albescens* nom. nov. p. 73 for *Bulimus oblongus* var. *alba* E. A. Smith, 1894, non. *B. oblongus* var. *albus* Bland and Binney 1872; *S. oblongus perelongatus* p. 77 pl. 22 f. 3 Colombia; *S. oblongus elongatus* p. 78 pl. 1 f. 4; pl. 2 f. 4 Uruguay; *S. oblongus conicus* p. 79 pl. 6 f. 1; pl. 19 f. 2 pl. 23 f. 1, 3 Brazil; *S. oblongus musculus* p. 82 pl. 12 f. 6; pl. 20 f. 1; pl. 31 f. 4 Paraguay subspp. nov.; *S. terrestris oliveirai* p. 117 pl. 5 f. 2; *S. sanctipauli pygmaeus* p. 138 pl. 15 f. 5; *S. sanctipauli eyerdami* p. 139 pl. 24 f. 2; *S. granulosus abbreviatus* p. 164 pl. 27 f. 4; *S. granulosus foreli* p. 165 pl. 28 f. 3 Brazil subspp. nov., **J. C. Bequaert**.

BULIMULACEA

Anostoma baileyi sp. nov. Salobra, Matto Grosso, Brazil, **A. Solim (1)** Notulae Naturae No. 287 1956 4 pl. 1 f. 1-3.

Bostryx (*Platybostryx*) *fisheri* sp. nov. below Tarma on the Tarma-Chanchamayo road, Peru, **H. A. Pilsbry** Nautilus **69** Jan. 1956 p. 92 pl. 5 f. 4, 5.

Bulimulidae from the rivers of Alabama, Georgia and Florida, U.S.A., **Clench & Turner** p. 122; Bulimidae from Java, **E. v. B. Jutting**.

Bulimulus (*Scansicocchlea*) *hyltonscottae* p. 59 f. 1-4; *B. (S.) strobeli* p. 62 f. 5 spp. nov. San Luis Province, Argentina, **J. Parodiz (1)**; *B. (Scansicocchlea) catamarcanus* p. 77 f. 6; *B. (S.) rudisculptus* p. 78 f. 7 spp. nov. Catamarca Province, Argentina, **J. Parodiz (2)**; *B. (Bulimulus) araozi* sp. nov. Tingo Maria, Peru, **W. K. Weyrauch (2)** Arch. Molluskenk. Frankfurt a.M. **85** 4/6 1956 p. 149 pl. 11 f. 8.

Cerion Röding 1798, neuter gender, **Direction 42**.

Cerion eximium lernerii subsp. nov. Bimini Islands, Bahamas, **W. J. Clench (5)** p. 1 f. 1, 2; *Cerion* geographic variation and hybridization in Bahama populations, **Mayr & Rosen**.

Cyclodontina (*Cyclodontina*) *inflatus salobrensis* subsp. nov. Salobra, Matto Grosso, Brazil, **A. Solem (1)** Notulae Naturae No. 287 1956 7 pls. 1 f. 22.

Macroceramus loeryi sp. nov. Puerto Rico **M. K. Jacobson** Arch. Molluskenk. **84** 1/3 1955 97 text-figs. 1-3.

Naesiotus elegantulus p. 4 pl. 1 f. 1; *N. andivagus* p. 5 pl. 1 f. 2; *N. gracillimus* p. 6 pl. 1 f. 3; *N. pilsbryi* p. 6 pl. 1 f. 4; *N. haasi* p. 7 pl. 1 f. 5, 5a; *N. zilchi* p. 9 pl. 1 f. 6 spp. nov. Peru, **W. Weyrauch**.

Partula taeniata genetic diversity, **D. W. Bailey**.

Stenostylus zilchi sp. nov. Peru, **W. K. Weyrauch (2)** Arch. Molluskenk. Frankfurt a.M. **85** 4/6 1956 p. 156 pl. 11 f. 18.

Thaumastiella subgen. nov. of *Thaumastus* to include *T. sarcocrous* and *T. glyptocephalus* (Pilsbry), **W. Weyrauch** p. 11.

Thaumastus (*Thaumastiella*) subgen. nov. Bulimulidae, **W. Weyrauch** p. 11

HELICACEA

Arianta arbustorum function of radula
K. Markel p. 454 f. 2.

Bradybaena (Chosenelix) problematica (Pilsbry) 1927, formerly known as *Chloritis (C.) problematica*, T. Habe (7) p. 192.

Cathaica rufispira hispida subsp. nov. Sarekanda Mts., Badakshan, Afghanistan, S. Jaeckel (1) p. 349 f. 8.

Cepaea nemoralis (L.) up to 1600 feet on Cross fell, E. Blezard; *C. nemoralis* effect of temperature on histological evolution of the ovotestis, J. Bouillon; *C. nemoralis* genetic stability of populations, C. Goodhart; *C. nemoralis*, shell banding patterns in two colonies in Ontario, W. Judd; *C. nemoralis*, on a colony and variation in same as regards colour and banding, M. A. Landman.

Epiphragmophora birabeni p. 93 f. 1; *E. villavilensis* p. 94 f. 1 spp. nov. Catamarca Province, Argentina, J. Parodiz (3); *E. ormeai* sp. nov. Peru, W. K. Weyrauch (2) Arch. Molluskenk. Frankfurt a.M. 85 4/6 1956 p. 158 pl. 11 f. 19.

Euhadra amaliae studies on the eye Hara & Hara.

†*Euomphalia obvoluta unidentata* var. nov. Holocene, Bohemia, J. Petrboek (1) p. 8.

Euparypha Hartmann, 1844, rejected, Opinion, 431.

Euparypha pisana Müll. ssp. *arietina* Rossm. from S. Spain, C. Sacchi (3).

Helicella Lamarck, 1812, rejected Opinion 431.

Helicella Férussac, 1821, validated: type species designated as *Helix itala* Linn. 1758, Opinion 431.

Helicella caperata (Mont) up to 1200 ft on Newbiggin Fell, E. Blezard.

Helicellinae Hesse, 1926, family group name validated; Helicellinae Chenu, 1859, family-group name rejected, Opinion 431.

†*Helicodonta obvoluta* at Bobbitshole, Ipswich, A. G. Davies (1).

Helix Linn. 1758, gender feminine, Direction 42.

Helix incurva Renier "[1804]", the specific name, as used in the above combination, rejected, Opinion 427

Helix cartusiana Müller (O.F.), 1774 (specific name of type species of *Monacha*); *H. cellaria* Müller (O.F.) 1774 (specific name of type species of *Oxychilus*); *H. itala* Linn., 1758 (specific name of type species of *Helicella*); *H. pisana* Müller (O.F.) 1774 (specific name of type species of *Theba*), above species validated; *H. rhodostoma* Draparnaud, "[1801]" rejected, Opinion 431.

Helix pomatia experiments on the heart, L. Acolat; *H. pomatia* and effect of drugs on the heart, L. Acolat (2); *H. pomatia* experiments on the heart, Acolat & Cornier; *H. pomatia* spermatocyte structure, J. André; *H. pomatia* histochemical localization of β -glucuronidase, Billett & McGee-Russell; *H. pomatia*, the use of glucosamine in experiments on the heart, Binet, Jullien, Ripplinger & Carnot; *H. adspersa* experiments on heart, M. Corda and M. Corda (1); *H. adspersa* experiments on cardiac cycle before and during stimulation of extrinsic nerves, M. Corda (2); *H. pomatia* L. Chemical studies and alimentation, Dastugue, Bastide and Moinet; *H. pomatia*, *aspersa* composition of blood-pigments, E. Eliassen; *H. pomatia* structure, A. Fabricius; *H. pomatia* L. structure, Grassé, Carasso & Favard; *H. pomatia*, chromosome ultrastructure. The spermatozooid, Grassé, Carasso & Favard (1); *H. pomatia* structure of mitochondria in spermatozoide, Grassé, Carasso & Favard (2); *H. pomatia* spermatogenesis, Grassé, Carasso & Favard (3); *H. pomatia* golgi elements of the neurones, Gresson, Threadgold & Stinson; *H. aspersa*, the first in Hawaii, Y. Kondo; *H. aspersa* a second specimen in Hawaii, Y. Kondo (2); *H. nemoralis* function of the isolated heart, Jullien, Cardot & Vieille-Cessay; *H. pomatia* experiments on the heart movements, Jullien, Ripplinger & Guyon; *H. pomatia* survival of the isolated heart at low temperature in different media, Jullien, Cardot & Rerat; *H. pomatia* experiment on heart, Jullien, Ripplinger & Joly; *H. pomatia* influence of various substances on heart ventricle action, Jullien, Ripplinger & Joly; *H. pomatia* experiments on inhibition of the heart and the action of the visceral nerve, Jullien, Ripplinger & Joly; *H. pomatia* experiments on heart activity, Jullien, Ripplinger & Cardot; *H. pomatia*

experiments on automatism of the heart, **Jullien, Ripplinger & Cardot**; *H. pomatia* production by the heart of a substance equivalent to acetylcholine, **Jullien, Ripplinger & Cardot**; *H. pomatia* reports of acetylcholine production by the heart, **Jullien, Ripplinger & Cardot**; *H. pomatia* Nervous systems, **Jullien & Ripplinger**; *H. pomatia*, nerve structure, **Jullien & Ripplinger**; *H. pomatia*, experiments on heart, **Jullien & Ripplinger**; *H. pomatia* atropine-calcium antagonism, **Jullien & Ripplinger**; *H. pomatia*, course of excretion, **K. Nejedlý**; *H. pomatia* blood-sugar level relative to temperature, **Pavlović & Bać**; *H. adspersa* experiments on the heart, relative to Starling's Law, **Peruzzi & Corda**; *H. pomatia* influence on isolated heart, of extract of *Ecballium elaterium*, **Pora & Rosca**; *H. aspersa* distribution and dispersal by human agency, **W. J. Rees**; *H. pomatia* action of K^+ and C^{++} ions on activity of the heart, **Ripplinger & Joly**; *H. pomatia* experiments on the heart, **Ripplinger & Joly** (1); *H. pomatia* morphology and special technique, **A. L. Rogue**; *H. pomatia*, electrical effects observed in cellular ganglions, **L. Tauc** (1); *H. pomatia* reaction of the isolated heart to acetylcholine, **Velluda, Ticsa & Csutak**.

†*Helix* (*Archhelix*) *betieri* sp. nov. p. 129 pl. 1 f. 9, 10, 13a-c; *H. (A.) betieri conica* var. nov. p. 129 pl. 1 f. 8; *H. (A.) tectiformis* sp. nov. p. 127 pl. 1 f. 2, 4, 5, 6, 7a, b, 11a-c; Miocene from environs of Gambatta, **David & Jodot** Bull. Soc. Hist. Nat. Afrique Nord 46 3/4 1955.

Hygromia (*Ponentina*) *subvirescens* Bellamy between Beer Head and Branscomb, S. Devon, **A. G. Davis** (2).

†*Hygromia* (*Ponentina*) *subvirescens* (Bellamy) in Holocene deposit at Haslyn Bay near Padstow, Cornwall, **A. G. Davis** (3).

Iberus note on systematics, **Garcia San Nicolás & Alvarado**.

Jacosta Gray (J.E.), 1821, suppressed, see Opinion 431.

†*Leptaxis neivai* sp. nov. nom. nud. Miocene, Porto Santo Island, Atlantic ocean, N.E. of Madeira, **Silva, G. H. da** p. 35.

Leucochroa candidissima polymorphism, **J. Altes**; *L. candidissima* shell polymorphism, **J. Altes** (1).

Monacha Fitzinger, 1833, validated Opinion 431.

Murella (*Ambigua*) *fuscolabiata* from Tropical East Africa, **C. Boettger** (4).

Nipponochloritis subgen. nov. of *Trichochloritis* subgenotype *Chloritis fragilis* Gude, **T. Habe** (2) Venus 18 1955 pp. 226, 232.

Opica fuscolabiata brunellae subsp. nov. Pizzo Salvatesta, Messina Province, Sicily, **C. F. Sacchi** (2) p. 3 f. 1 2.

Planatella Clessin, 1876, rejected, Opinion 431.

Psadariella subgen. nov. of *Solaropsis* subgenotype *Solaropsis* (*Psadariella*) *palizae* sp. nov. Peru, **W. K. Weyrauch** (2) Arch. Molluskenk. Frankfurt a.M. 85 4/6 1956 pp. 159-160 pl. 11 f. 15-17.

Pyrenaearia on the anatomy and systematics of the Spanish species; *P. cantabrica cavadongae* p. 44 f. 14; *P. carascalensis parva* p. 56, Sierra del Coli, province of Lérida vars. nov.; *P. poncebensis* sp. nov. p. 46 f. 5, 16, 22, 23, 25-27 Spain, **A. O. Lopez**.

†*Tachea* (= *Cepaea*) *hortensis* f. *minor depressa* subform. nov.; *T. (= C.) hortensis minutissima* form. nov. Holocene, Smíchov, Bohemia, **J. Petržok** (1) p. 8.

Theba Risso, 1826, validated Opinion 431.

Theba carthusiana in Mecklenburg, Germany, **H. A. Schmidt** (1).

Trichia erjavecii hajlensis subsp. nov. Hajla-Planina, Macedonia, **S. Jaeckel** (see Jaeckel & Meise) p. 29 pl. 1 f. 4.

Xerophila Held, 1837, rejected, Opinion 431.

Xeropicta gyroides from Tropical East Africa, **C. Boettger** (4).

Yakuchloritis subgen. nov. of *Trichochloritis* subgenotype *Chloritis albolabris* Pilsbry and Hirase, **T. Habe** (2) Venus, 18 1955 p. 224, 232 f. 11.

STREPTAXACEA

Artemon pilsbryi sp. nov. Salobra, Matto Grosso, Brazil, **A. Solem** (1) Notulae Naturae No. 287 1956 11 pl. i f. 4-6.

Gonaxis kibweziensis and its economics relative to *Achatina*, **A. R. Mead** (1).

Gulella (*Pupigulella*) *pupa mueriensis* p. 108 f. 16; *G. tudes minor* p. 122 f. 23; **vars. nov.**; *G. (Paucidentina) oloitae* p. 114 f. 19; *G. bolocoensis* p. 124 f. 24; *G. (Costigulella) poocensis* p. 129 f. 26; *G. (Molarella?) fernandensis* p. 132 f. 27; *G. (M?) mongolae* p. 134 f. 28; *G. escalerae* p. 136 f. 29 a, b; *G. cacuminata* p. 138 f. 30; **spp. nov.** Fernando Póo Island, W. Africa, **López & Rocandio**; *G. (Primigulella) ndamanyiluensis* **sp. nov.** Tanganyika, West Usambaras, Mt. Ndamanyilu, 5 m. west of Malindi, 5,800–7000 ft., **Venmans Basteria** 20 4/5 Dec. 1956 p. 74 text-figs. 7, 8, 9; *G. intrusa* **sp. nov.** East Usambaras, Mt. Bomola, Tanganyika, **Verdcourt** (1) *Proc. Malac. Soc. London* 32 1/2 Aug. 1956 p. 69 text-figs. 4, 5; *G. usagarica msambaa* **subsp. nov.** W. Usambaras in Coryndon Museum, **Verdcourt Basteria** 20 4/5 Dec. 1956 p. 73.

Haplotrema concavum (Say) and *H. kendeighi* Webb described as a subspecies of *H. concavum*, are distinct species, **L. Hubricht** (1).

Ptychotrema (*Ennea*) *bonyomae* p. 99 f. 12; *P. (E.) malaboensis* p. 101 f. 13; **spp. nov.** Fernando Póo Island, W. Africa, **López & Rocandio**.

Streptaxis (*Streptartemon*) *extraneus* **sp. nov.** Serra Formosa bie Mulata, Monte Alegre Staat Pará, Brazil, **F. Haas** *Archiv. f. Mollusk.* 84 1/3 1955 102 text-figs. 1–3.

Streptostele (*Streptostele*) *minima* **sp. nov.** Fernando Póo Island, W. Africa, **A. O. de Z. López & A. O. de Z. Rocandio** p. 87 f. 4.

SCAPHOPODA

Spermio genesis in some species, **A. Franzén** (1); Scaphapoda secretions, **M. Gabe** (1).

†*Cadulus* (*Dischides*) *yatalensis* **sp. nov.** Pliocene, Australia, **N. H. Ludbrook** p. 4 pl. 1 f. 3, 4 [nom. nud. *Tr. roy. Soc. S. Aust.* 77 1954 : p. 58.]

Dentalium Linn. 1758, neuter gender, **Direction** 42.

Dentalium vulgare population variations and effect of parasitism, **J. M. Gaillard** (3); *D. (Tesseracme) hancocki* **sp. nov.** Off west coast of Mexico, **W. K. Emerson** (1) p. 3 f. 1.

†*Dentalium* (*Fissidentalium*) *marvsoni* p. 2 pl. 1 f. 5, 6; *D. (Antalis) denotatum* p. 3 pl. 1 f. 7–9 **sp. nov.** Pliocene, Australia, **N. H. Ludbrook** [nom. nud. *Tr. roy. Soc. S. Aust.* 77 1954 : p. 58.]

†*Siphonodentalium* (*Pulsellum*) *adelaidense* **sp. nov.** Pliocene, Australia, **N. H. Ludbrook** p. 4 pl. 1 f. 1, [nom. nud. *Tr. roy. Soc. S. Aust.* 77 1954 : p. 58.]

Pelecypoda or Lamellibranchiata

Fine structure of the shells of some lamellibranchs, **G. Athanassopoulos**; Spanish Cretaceous Lamellibranchia, **J. Bataller** (1); Physiology of nutrition and Water conservation, **W. v. Buddenbrock** pp. 241–255; Spermio genesis in some species, **A. Franzén** (1); Naming Carboniferous non-marine lamellibranchs, **R. Eager**; Lamellebranchiata histological notes on neuro-secretion in numerous species, **M. Gabe** (2); Lamellibranchs from Kerguelen and Heard Islands, **J. M. Gaillard**; Lamellibranchs from the Thyrrenian sea, off the Tuscan coast, some listed for the first time from this locality, **B. Gianfranco**; Structure and diversity of form in the lamellibranchs, **H. Janus**; Fluviatile and lacustrine Pelecypoda from Victoria, Australia, **R. C. Kershaw**; growths and decline of population and distribution, **D. Nicol**; Taxonomic significance of gaps in morphology, **D. Nicol** (2); Observations on stomach and digestive diverticula, **G. Owen**; Stomach types of Protobranchia and Septibranchia, **R. D. Purchon** (3); Lamellibranch larvae in the North Sea, **C. B. Rees**; Lamellibranchs of the genera *Inoceramus*, *Didymotis*, *Liopistha*, *Lopha*, **spp.** from the La Suma formation of Western Venezuela, **Rutsch & Salvador**; Pelecypoda from Strangford Lough and neighbouring coasts, Ireland, **G. Williams**.

PRIONODESMACEA

†*Edmondia sibirica* **spec. nov.** Verkhoyansk ridge, Russia, Permian, **Kulikov, M. V.** *C.R. Acad. Sci. Moscow* 101 6 1955 p. 1102.

†*Grammysia quadrata* p. 273 pl. 1 f. 6, 7; *G. obliqua* p. 274 pl. 1 f. 8, 9; **spp. nov.** Silurian Pentland Hills nr. Edinburgh, **A. Lamont** *Proc. roy. soc. Edinb.* 65B 3 1954.

NUCULACEA

Austrotindaria benthicola p. 13 f. 14, 15; *A. flemingi* p. 14 f. 12, 13, 16 spp. nov. 330 fathoms south-east of Pitt Island, New Zealand, **R. K. Dell**.

Huxleyia Adams, April, 1860 has precedence over *Cyrella* Adams, June, 1860. *Cyrellista* Iredale, 1929 and *Diabolica* Jousseume, 1897 are synonyms, **H. E. Vokes**.

Jupiteria wolffi sp. nov. 155 fathoms, South-east of Pitt Island, New Zealand **R. K. Dell**, p. 13, f. 17, 18.

Neilo rugata sp. nov. c. 300 fathoms, E.-N.-E. of Taiaroa Head, New Zealand, **R. K. Dell** p. 14 f. 62, 63.

Nucinella S. Wood, 1861, the type of the genus is *N. miliaris* "Deshayes" Wood [non Deshayes] = *Pleurodon ovalis* Wood, from the Pliocene of England. *Pleurodon* Wood, 1840 non Harlan 1831, *Nuculina* d'Orbigny, 1844 non Porro 1837, *Cyrellona* Iredale, 1929 and *Neoplodon* Hertlein and Strong, 1940 are synonyms of *Nucinella*. **H. E. Vokes** *J. Paleont.* 30 3 1956 pp. 652-671.

†*Nucinella oregonia* sp. nov. p. 657-658, text-f. 2A-2C, Upper Eocene, Nestucca formation of Oregon, **H. E. Vokes** *J. Paleont.* 30 3 1956 pp. 652-671.

Nucula strangeiformis sp. nov. 220-300 fathoms, Chatham Rise, New Zealand, **R. K. Dell** p. 9 f. 2, 3.

†"*Nucula*" *iwaiyai* sp. nov. Upper Triassic, Sakawa Basin, Shikoku, Japan, **K. Ichikawa** p. 269 pl. 10 f. 7; *Nucula aegyptiaca* p. 115 pl. 9 f. 4-9; *N. chavani* p. 116 pl. 9 f. 14-16 spp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, **I. G. Mahmoud**; *N. prepercrassa* sp. nov. Cretaceous. Ochillee Creek, Georgia, U.S.A., **L. Stephenson** (1) p. 234 pl. 39 f. 1-5.

†*Nuculana lyonsensis* p. 8 pl. 1 f. 7-9; *N. thomasi* p. 10 pl. 1 f. 1-2, 10; spp. nov. Lower Permian, Western Australia, **J. M. Dickins** *Bull.* 29 Com. Austr. dep. Nat. Develop. Min. Res. Geol. Geoph. 1956; *N. insolita* sp. nov. Devonian, Buchan Caves limestone, Victoria, Australia, **J. A. Talent** p. 48 pl. 4 f. 9.

Nuculidae—anatomy of the stomach and digestive diverticula, **G. Owen** (1).

†*Palaeoneilo tenelliformis* sp. nov. Upper Triassic, Sakawa Basin, Shikoku, Japan, **Kobayashi & Ichikawa** in *Ichikawa* p. 271 pl. 10 f. 8.

†*Prilukiella* gen. nov. p. 138 type: *P. janischewskyi* sp. nov. p. 140 pl. 18 f. 1-16; *P. janischewskyi infurcatidentata* var. nov. p. 141 pl. 18 f. 11, 12. Tatarian Stage, Triassic. Lower Sukhona River, Russia, **M. Plotnikov**.

Saccella hedleyi morioria subsp. nov. 155-330 fathoms, Chatham Rise, New Zealand, **R. K. Dell** p. 12 f. 10, 11.

†*Trigonucula* gen. nov. p. 267, Nuculidae, Genotype: *T. sakawana* sp. nov. p. 267, 268, pl. 10 f. 1-3; *T. sakawana tokombensis* p. 269 pl. 10 f. 4-5; *T. sakawana lata* p. 269 pl. 10 f. 6 vars. nov. Triassic, Sakawa Basin, Shikoku, Japan, **K. Ichikawa**.

Yoldia hyperborea limatuloides subsp. nov. Fosfjord (Arnarfjord) N.W. Iceland, **Ockelmann** *Medd. Grønland* 107 7 1954 p. 11 pl. 1 f. 2 pl. 2 f. 1, 2; *G. myalis*, *sapotilla*, *limatula*, *hyperborea*, and *h. limatuloides* key to species, **W. K. Ockelmann**.

†*Yoldia hikoshimensis* sp. nov. Tertiary, south of Watase, Hikoshima, Yamaguchi Prefecture, Japan, **K. Hirayama** p. 84, p. 102 pl. 6 f. 1.

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Anadara inflata guanine-deaminating activity and nitrogen metabolism, **S. Ishida**; *A. inflata* distribution of uricase activity, **Ishida, Tsuzuki & Nitahara**; *A. antiquata* (L.) *A. a. scapha* Meuschen new to Seychelles, **Rost & T. Soot-Ryen**; *A. inflata* researches on haemoglobin, **Yagi, Mishima, et al.**

Arca subdisparilis nom. nov. for *Arca disparilis* Orb., **D. Nicol** (1) *J. Paleont.* 28 1 1954 p. 96.

†*Arca sampelayoi* sp. nov. Jurassic. Maranchón, Castell, Concha & Revilla; *A. turonica konkensis* p. 30 pl. 2 f. 1-4; *A. noae usboica* p. 30 pl. 1 f. 10-14 subspp. nov. Miocene. Turkmenistan & W. Kazakhstan, **Merklin & Neveskaya**.

Austrosarepta benthicola sp. nov. 260-350 fathoms, off E. Otago coast, New Zealand, **R. K. Dell** p. 15 f. 26, 29.

Barbatika (Cucullaearca) ovata new to Seychelles, **Rost & T. Soot-Ryen**.

†*Breviarca unisulcata* sp. nov. Cretaceous, Shishi-jima, southwest Japan, **M. Amano** p. 66 pl. 1 f. 6-8; *B. subinflata* p. 236 pl. 39 f. 6-8. Ochillee Creek, Georgia; *B. symmetros* p. 236 pl. 40 f. 1, 2. Hurstboro-Marvyn road, Russell County, Alabama spp. nov. Cretaceous, U.S.A., **L. Stephenson** (1).

†*Cucullaea* (*Megacucullaea*) nov. sp. aff. *C. (M.) eminens* Cox Kimmeridgian, Katrol series, Kutch, India, **S. Agrawal** (2) p. 14 pl. 1 f. 1a-b; *C. (Cucullaea) cori* p. 59 pl. 8 f. 3a-b; *C. (Megacucullaea)* sp. nov. aff. *C. (M.) eminens*, Cox; p. 61; **S. K. Agrawal** (1) Ann. Cent. et Doc. Paléont. No. 19 1956.

Cucullacidae review of genera and subgenera with types, **D. Nicol** (1).

†*Cyrtodontarca* note on structure, **N. Yakovlev**.

†*Gignouxiarca* gen. nov. Arcidae; *G. orientalis* sp. nov. Cretaceous. Moghara Massif, Sinai Egypt, **I. G. Mahmoud** p. 117 pl. 9 f. 17, text-f. 55.

†*Glycymeris idensis* p. 267 pl. 38 f. 1-5; *G. flabellata* p. 268 pl. 38 f. 9-13. Miocene. Miyagi Prefecture; *G. compressa* p. 269 pl. 38 f. 6-8 Aka-shiba formation. Fukushima Prefecture; *G. osozawensis* p. 270 pl. 38 f. 14 a-c, Pliocene, Yamanashi Prefecture. spp. nov. Tertiary, Japan, **S. Kanno**.

Glycymeris sect. *Pectunculus* Lamark 1799; *Glycymeridae* p. 794 and *Pectunculus* Da Costa synonym of *Dosinia* fam. Veneridae p. 888.

Hochstetteria sculpturalis sp. nov. 130 fathoms off the Forty Fours, Chatham Islands, New Zealand, **R. K. Dell** p. 17 f. 21, 22.

†*Mnataia* gen. nov. p. 4, Genotype: *M. přibylí* sp. nov. p. 5 f. 1-9. Devonian. Holyně, Bohemia, **Prantl & Růžicka**.

†*Pectunculus* (*Axinaea*) *obtusatiformis* sp. nov. Tortonian Miocene. S.W. Russia, **V. Ghoretzkii** p. 200 pl. 2 f. 4.

Stenzelia nom. nov. for *Trinacriella* Macocci 1937 non Del Guercio 1913 nec Parona 1933 "type (of *Trinacriella*): *Pectunculus perplanus* Conrad," **F. S. Macneil** J. Paleont. 28 2 1954 p. 217.

†*Trigonarca inflata* sp. nov. Cretaceous. Hurstboro-Marvyn road, Russell County, Alabama, U.S.A., **L. Stephenson** (1) p. 237 pl. 40 f. 4-8.

Tucetoma subtilis sp. nov. off the south shore of Bermuda at about 100 fathoms, **D. Nicol** (3) Nautilus 70 2 Oct. 1956 51 pl. 3 f. 1, 2.

MYTILACEA

Amygdalum papyria Conrad in Maryland waters of Chesapeake Bay, **J. F. Allen** (1).

†*Arcomytilus arnali* sp. nov. Cretaceous. Valencia, Spain, **J. Bataller** p. 285 1 fig.

Austromytilus gen. nov. Mytilidae: genotype: *Mytilus rostratus* Dunker, New South Wales, Australia, **C. F. Lason** (1) p. 265 f. 4, 5.

Botula foliata behaviour within boring, form and method of boring figs., **C. M. Yonge** (1).

Brachidontes Aragonite percentage, **H. A. Lowenstan**.

†*Chondrodonta munsoni* from the Cretaceous. Yugoslavia, **M. Pleničar**.

Fluviolanatus amarus sp. nov. coastal lagoons, N.S.W. Australia, **C. Lason** (1) p. 274 f. 46-49.

†*Hilgardia* gen. nov. Mytilidae: genotype. *Hilgardia compressa* sp. nov. Cretaceous, Ripley Formation, Union County, Mississippi, **L. W. Stephenson** J. Paleont. 30 3 1956 p. 752-753, text-f. 1A-D.

Lithophaga calcifer from coral New South Wales, Australia, **L. Woolcott**; *Lithophaga plumula*, Habitat mantle and siphon, behaviour in boring, method of boring and nature of boring, **C. M. Yonge** (1).

†*Modiola manzouriana* sp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, **I. G. Mahmoud** p. 104 pl. 6 f. 1 text-f. 49.

Modiolaria commensal with Ascidians, **A. Bourdillon**; *M. marmorata*. Quantitative aspects of filter feeding, **C. B. Jørgensen**.

†*Modiolopsis finlayi* sp. nov. Silurian, Portland Hills, nr. Edinb., **A. Lamont** Pr. roy. Soc. Edinb. 65B 3 1954 p. 282 pl. 1 f. 1.

Modiolus peronianus p. 269 f. 22-24, Port Hacking; *M. cottoni* p. 270 f. 25-28 30-50 fathoms off Twofold Bay spp. nov. N.S.W., Australia, C. Laseron (1).

Musculus albanus sp. nov. N.S.W., Australia, C. F. Laseron (1) p. 268 f. 13, 14.

†*Musculus conditus sartasi* p. 98 pl. 29 f. 6-10; *M. naviculoides maximus* p. 99 pl. 29 f. 21-23 subspp. nov. Miocene. Turkmenistan and W. Kazakhstan, Merklin & Nevesskaya.

†*Myoconcha piveteani* sp. nov. Callovian Kutch India Agrawal (1) Ann. Cent. ét. Doc. Paléont. No. 19 1956 p. 93 pl. 10 f. 13a-c.

Mytilaster lineatus in the Caspian Sea, L. Zenkevitch.

Mytilus Linn. 1758, gender masculine Direction 42.

Mytilus edulis oxidation of L-amino acids, Blaschko & Hope; *M. edulis* v. *galloprovincialis*, conditions necessary for spawning H. Bouxin; *M. edulis* growth of forms at Boulogne-sur-Mer, H. Brienne; *M. edulis diegensis* population variations in California, W. R. Coe; *M. edulis*, *M. galloprovincialis* general biology and culture, H. A. Cole in M. Graham p. 162-168; *M. californianus* growth rates in different populations, P. Dehnel; *M. edulis* seasonal variation of chemical contents, F. Fraga; *Mytilus* chemical contents, Glahn, Manchon & Roche. *M. edulis* culture in Holland, B. Havinga; *M. edulis* mechanism of anterior byssus retractor muscle, Hoyle & Lowy; *M. edulis* guanine-deaminating activity and nitrogen metabolism, S. Ishida; *M. edulis* distribution of uricase activity Ishida, Tsuzuki & Nitahara; *M. edulis* egg maturation, K. Iwata; *Mytilus*: On the muscle, figs., J. Lowy; *M. edulis* L., on neuro-secretion, P. Lubet; *M. edulis* effect of removal of nervous centres on emission of gametes, P. Lubet (2); *M. edulis*, P. Lubet (1); *M. edulis* influence of *Mytilicola intestinalis* on the gonad development, H. Mann; *M. edulis* attacked by *Mytilicola intestinalis*, Meyer-Waarden & Mann; *M. edulis* culture in the German Waddensea, Meyer-Waarden; *M. edulis* relation between zinc and sperm motility, T. Mizuno; *M. edulis* adaptation to salinity fluctuations, M. Mot-

wani; *M. edulis* osmotic and ionic regulation, W. T. W. Potts (1); *M. galloprovincialis* Lmk. sexuality, E. Ricci; *M. edulis* difference in size of forms from the White & Okhotsk Seas, Russia, A. Savilov (1); *M. edulis* studies on the acrosome, Wada, Collier & Dan.

†*Mytilus razmyslovae* sp. nov. Miocene. Turkmenistan and W. Kazakhstan, Merklin & Nevesskaya p. 96 pl. 28 f. 1, 2.

†*Opokiella* gen. nov. p. 92, type: *O. tschernyschewi* p. 93 pl. 10 f. 8, 9; *O. tetradroides* p. 94 pl. 10 f. 6, 7 spp. nov. Tatarian stage, Triassic? Sukhona River, Russia, M. Plotnikov (1).

Septifer australis sp. nov. 14 fathoms off Long Reef, N.S.W., Australia, C. F. Laseron (1) p. 266 f. 6, 7.

†*Stutchburia maderongensis* sp. nov. Lower Permian Western Australia, J. M. Dickins Bull. 29 Com. Aust. dep. Nat. Develop. Min. res. Geol. Geoph. 1956 p. 14 pl. 1 f. 12-17.

Volsella metcalfi early life history, H. Yoshida.

†*Volsella weaveri* sp. nov. Cretaceous. Antofagasta, Chile, Leanza & Castellaro p. 192 pl. 2 f. 4.

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†*Actinopecten* (?*Tolmaia*) *midlothiana* sp. nov. Silurian Pentland Hills, nr. Edinburgh, A. Lamont Proc. roy. Soc. Edinb. 65B 3 1954 p. 279 pl. 1 f. 3, 4.

†*Actinopteria meridionalis* sp. nov. Siluro-Devonian. Marble Creek, Thomson river, Victoria, Australia, Talent & Philip p. 68, pl. 7 f. 19.

Atrina vexillura Born new to Seychelles, Rost & T. Soot-Ryen; *A. pectinata japonica* early life history, H. Yoshida.

†*Avicula cygnipes* Phillips 1829, *Avicula longicosta* Stutchbury 1839, figured, H. Hölder.

†*Aviculopecten netschajewiformis* sp. nov. Verkhoyansk ridge, Russia, Permian, Kulikov, M. V. C.R. Acad. Sci. Moscou 101 6 1955 p. 1102.

†*Avicolupinna* (?) *Sibirica* sp. nov. Verkhoyansk ridge, Russia. Permian, Kulikov, M. V. C. R. Acad. Sci. Moscou 101 6 1955 p. 1102.

†“*Cassianella*” *dubia* sp. nov. Upper Triassic, Sakawa Basin, Shikoku, Japan, Kobayashi & Ichikawa (1) p. 184 pl. 6 f. 10a–b.

Electroma tragulata from coral at Queensland, Australia, L. Woolacott.

†*Entomonotis multistriata* p. 255 pl. 9 f. 11, 14; *E. tenuicostata* p. 259 pl. 9 f. 6, 7 spp. nov.; *E. zabaikalica intermedia* p. 258 pl. 10 f. 19–20; *E. tenuicostata mabara* p. 260 pl. 9 f. 8 vars. nov. Triassic, Sakawa Basin, Shikoku, Japan, Kobayashi & Ichikawa (2).

†*Halobia aotii* nom. nov. p. 185 for *H. multistriata* Kobayashi and Aoti, 1943; *H. kashiwaensis* sp. nov. p. 185 pl. 6 f. 11, Upper Triassic, Sakawa Basin, Shikoku, Japan, Kobayashi & Ichikawa (1).

†*Inoceramus* from the Trans-Carpathian flisch, Tertiary, Vyalov & Pasternak.

†*Leioptera jacksonensis* p. 46, pl. 3 f. 15; *L. buchanensis* p. 47, pl. 3 f. 14; pl. 4 f. 8 spp. nov. Devonian. Buchan caves, Victoria, Australia, J. A. Talent.

Melegrina margaritifera containing a fish trapped inside it's shell and covered with naere, A. Zänkert.

†*Modiomorpha tenuilineata* p. 48, pl. 4 f. 3–6; *M. concentricrugosa* p. 48 pl. 4 f. 1, 2 spp. nov. Devonian. Buchan Caves, limestone, Victoria, Australia, J. A. Talent.

†*Oxytoma scanica* (Lundgren) in the Planorbis-Zone in Wurtemberg, figs., H. Hölder; *O. longicostata* (Stutchbury) Middle Lias, England, figd., H. Hölder; *O. koniensis* sp. nov. Rhaetian, Triassic. Okhotsk Sea, River Vilighi, Koni Peninsula, Russia, I. Tschkov p. 189 pl. 3 f. 1–4.

Parviperna nucleus Lmk; *P. dextata* Krauss new to Seychelles, Rost & T. Soot-Ryen.

Pinna sunricata L. new to Seychelles, Rost & T. Soot-Ryen; *P. fragilis* Quantitative aspects of filter feeding, C. B. Jørgensen.

Pinctada martensi physiology of sensory responses, I. Honjo; *P. martensii* use of radioautography to study pearl formation, Okada, Tsujii, Watabe & Yoshii; *P. maxima* damage to shell

by boring animals, Takemura & Okutani; *P. martensii*, dahllite as a constituent of prodissoconch, N. Watabe; *P. martensii* shell structure, Watabe & Wada.

†*Plesiopinna* gen. nov. p. 70 Pinnidae. genotype *P. atriniformis* sp. nov. p. 71 pl. 1 f. 1–5. Cretaceous, Shishi-jima, southwest Japan, M. Amano.

†*Posidonia permica* sp. nov. Peruvian East Greenland, N. D. Newell Medd. Grønland 110 4 1955 pp. 16, 21 pl. 2 fs. 5, 6; *Posidonia camerata* sp. n. carboniferous Frankenberg, E. Paproth Paläont. Z. 27 3–4 1953 p. 191 pl. 12 f. 11.

†*Promyalina groenlandica* sp. nov. Permian East Greenland, N. D. Newell Medd. Grønland 110 4 1955 pp. 17 25 pl. 5 f. 11–13.

†*Pseudoptera securiformis* sp. nov. Cretaceous. Alabama and Georgia, U.S.A., L. Stephenson (1) p. 238 pl. 40 f. 9, 10; pl. 41 f. 12–14.

Pteridae, Mesozoic forms in the Pacific area, R. S. Allan p. 367.

†*Pterinea concentricamellata* sp. nov. Siluro-Devonian. Marble Creek, Thomson river, Victoria, Australia, Talent & Philip p. 69 pl. 7 f. 30, 31.

†*Pterochaenia fragilis* (Hall) a pseudoscalar pelecypod from the Devonian of the Ural, B. Nalivkin.

Vulsella living in a sponge, K. v. Haffner.

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†*Camptonectes khatschiljorensis* spec. nov. Tadzhikidsan depression, Khochilor. Paleogene, Korobkov, I. A. Trud. Leningrad Soc. Nat. 68 2 1951 p. 67 pl. 1 f. 3–6.

Chlamys (*Radulopecten*) Callovian Kutch, India, S. K. Agrawal (1) Ann. Cent. ét Doc. Paléont. No. 19 1956 p. 71 pl. 8 f. 12; *C. varia* growth, Audouin & Letaconnoux; *C. varia* general biology, Letaconnoux & Audouin; *C. varia* L. On neuro-secretion, P. Labet; *C. varia* effect of removal of nervous centres on emission of gametes, P. Labet (2); *C. cuneola* Reeve; *C. cfr. rubromaculata* Swby. new to Seychelles, Rost & T. Soot-Ryen; *C. farreri* growth and reproduction, Tehang-Si, Tsi shi (1); *C. opercularis* distribution and growth in Danish and Faroese waters, E. Ursin.

†*Chlamys mojsisovicsi* sp. nov. p. 165 pl. 5 f. 1-5; *C. mojsisovicsi toyamai* var. nov. p. 166 pl. 5 f. 6-8 Upper Triassic, Sakawa Basin, Shikoku, Japan, Kobayashi & Ichikawa; *Chlamys zimistanensis* sp. nov. p. 91 pl. 3 f. 1, 2 South Western Fergana. Paleogene; *C. necopinata* sp. nov. p. 92 Paleogene; *C. (?) foediaurita* sp. nov. p. 93 pl. 2 f. 18 Fergana, Dzhalalabad, Changir-tash. Paleogene; *C. sumsarica* Vialov var. *fastosa* var. nov. Fergana, Sokh, Pishtan, Changir-tash, Tadzhikistan depression, Aruk-tan, Terekli-tan p. 58 pl. 4 f. 2-4, 6, 8, 10, 11; *C. incelebrata* sp. nov. p. 99 pl. 3 f. 21 Fergana, Rishtan. Paleogene; *C. abominosa* sp. nov. p. 69 pl. 1 f. 17, 18 Tadzhikistan depression, Aruk-Tan, Russia. Paleogene; *C. vialovi* sp. nov. p. 80 pl. 2 f. 3-9 Isfara, Tadzhikistan depression, Tutkaul, Khochilor, Vakhsh river valley. Paleogene; *C. alajensis* sp. nov. p. 79 pl. 2 f. 2 Tadzhikistan depression, Estrom-tan Russia; *C. estimiensis* sp. nov. p. 77 pl. 2 f. 1 Tadzhikistan depression, Estim-tan, Russia. Paleogene; *C. edecimata* sp. nov. p. 76 pl. 1 f. 7, 7a Tadzhikistan depression, Shilabad, Russia. Paleogene; *Chlamys suzakiensis* sp. nov. p. 72 pl. 1 f. 8-11 Tadzhikistan depression, Khochilor, Aruk-tan, Tutkaul, Russia. Paleogene; *C. schirabadica*, sp. nov. p. 74 pl. 1 f. 12-16 Tadzhikistan depression, Shirabad, Russia. Paleogene; *C. sokhiensis* sp. nov. p. 83 pl. 2 f. 10-17 Fergana; Isfara, Sokh, Selrokh. Paleogene; *C. dichotocosta* sp. nov. p. 90 pl. 3 f. 14, 16 Fergane, Kara-Darya. Paleogene, Korobkov, I. A. Trud. Leningrad Soc. Nat. 68 2 1951. *C. subvacaensis* p. 190 pl. 3 f. 1; *C. wayensis* p. 189 pl. 2 f. 15; pl. 3 f. 2, 3 spp. nov. Cretaceous. Antofagasta, Chile, Leanza & Castellaro; *C. biarritzensis barbieri* var. nov. Oligocene, Belloua, Basse-Kabylie, Algeria, P. Muraour p. 318 pl. 3 f. 1, 2; *C. (Radulopecten) drewtonensis* sp. nov. Callovian, Jurassic. Kellaways Rock, E. Yorkshire, England, J. Neale, p. 371, pl. 28; *C. kannogawaensis* sp. nov. Tertiary. Tanzania massif, Kanagawa Prefecture, Japan, M. Shibata p. 231 pl. 33 f. 4 a, b.; *C. (Gigantopecten) latissima* from the Neogen of Moravia, V. Zázvorka.

Coralichlamys acroporicola from coral at Queensland, Australia, L. Woolacott.

Cyclopecten powelli p. 23 f. 34, 35, 610 metres, Galathea Station 626, Tasman Sea; *C. mestayerae* p. 24 f. 36, 39, 75 fathoms, off North Cape, New Zealand spp. nov., R. K. Dell.

†*Harpax* note on ecology, V. Boduilevskii.

†*Lima (Acesta) omorii* sp. nov. Kadonosawa formation, Miocene. Shiratori river, Iwate Prefecture, Japan, S. Aoki p. 189 pl. 29 f. 1; *L. (Plagiostoma?) kuromagariensis* p. 179 pl. 6 f. 18a-b; *L. naumanni* p. 177 pl. 6 f. 13-15 spp. nov.; *L. naumanni obliqua* p. 178 pl. 6 f. 16, 17 var. nov. Upper Triassic, Sakawa Basin, Shikoku, Japan, Kobayashi & Ichikawa (1); *L. (Mantellum) difficilis* sp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, I. G. Mahmoud p. 106 pl. 6 f. 6 text-f. 50; *L. acuteostata* sp. nov. Rhaetian, Triassic. Koni Peninsula, Okhotsk Sea, Russia, I. Tuckhov p. 192 pl. 3 f. 10.

†*Limatula rathodi* p. 86 pl. 9 f. 4; *L. onithali* p. 86 pl. 10 f. 14; spp. nov. Callovian Kutch, India, Agrawal (1) Ann. Cent. Ét. Doc. Paléont. No. 19 1956.

†*Limea? almela* p. 37 pl. 5 f. 4; *L. riosi* p. 38 pl. 5 f. 5; spp. nov. Jurassic Maranchón, Castell, Concha & Revilla.

†*Neitheia coxi* sp. nov. Cretaceous. Moghara Massif, Sinai Egypt, I. G. Mahmoud p. 105 pl. 6 f. 2-5.

Parvamussium maorium sp. nov. off E. Otago coast, New Zealand, 260-350 fathoms, R. K. Dell p. 20 f. 30, 31.

†*Patinopecten matumoriensis* (Nakamura) originally described as a subsp. of *P. kimurai* (Yokohama) by M. Nakamura, 1940, now raised to specific rank, K. Masuda (2) p. 221, 223 pl. 31.

Pecten maximus general biology and culture, H. A. Cole in M. Graham p. 175-177; *P. maximus* populations at Brest, France, L. Faure; *P. jacobus* chemical content, M. López-Benito; *P. yessoensis* habitats and spot mortality in Mutsu Bay, Japan, G. Yamamoto; *P. (Chlamys) teramachii* sp. nov. off Naha City, Ryakyeen Is., 2-5 fathoms, J. H. Webb Venus 19 1 1956 22 text-figs.

†*Pecten rochi* sp. nov. Callovian Kutch, India, Agrawal (1) Ann. Cent. Ét. Doc. Paléont. No. 19 1956 p. 75 pl. 9 f. 1, 2; *P. (Chlamys) alternans* sp. nov. Eocene. Northern Aral, Russia, A. K. Alexeiev p. 26 pl. 1 f. 11-13; *P. pseudo-pandorae*; *P. olisiponensis* spp. nov. [nom. nud. in list p. 37.] Miocene, Lisbon, J. C. Berkeley-Cotter; *P. mancus* sp. nov. p. 94 pl. 3 f. 22-27 South Fergane, Shurab, Russia. Paleogene, Korobkov, I. A. Trud. Leningrad Soc. Nat. 68 2 1951; *P. karadarjense* sp. nov., var. *dividicosta* var. nov. Tadzhikistan depression Aruk-tan, Russia Paleogene, Korobkov, I. A. Trud. Leningrad Soc. Nat. 68 2 1951 p. 89 pl. 3 f. 10, 12, 13, 15; *P. subitius* sp. nov. Paleogene. Aruk-Tan, Russia. Tadzhikistan Depression p. 85 pl. 3 f. 5-7, 9, 17; *P. kardarjense* sp. nov. p. 86 pl. 3 f. 3, 4, 8, 11, 18 Fergana: Kara-Darya. Paleogene, Korobkov, I. A. Trud. Leningrad Soc. Nat. 68 2 1951; *P. koniensis* sp. nov. Rhaetian, Triassic, Koni Peninsula, Okhotsk Sea, Russia, I. Tuchkov p. 195 pl. 4 f. 4-7; *P. (Chlamys) kancharai* from the Miocene of Sendai, Japan, K. Masuda (1); *P. (Chlamys) miyatokoensis* from the Miocene of Sendai, Japan, K. Masuda (3).

Pectinacea from the Tertiary of East Africa, Persia, and the Mediterranean region, Eames & Cox.

†*Plagiostoma? polita* sp. nov. Permian East Greenland, N. D. Newell Medd. Grønland 110 4 1955 pp. 16 23 pl. 4 f. 1-3.

†*Plicatula kantilajii* sp. nov. Callovo-Oxfordian Kutch, India, Agrawal (1) Ann. Cent. Ét. Doc. Paléont. No. 19 1956 p. 83 pl. 9 f. 10 a-c.

†*Pseudamussium ignotum* sp. nov. Aruk-Tan, Russia. Tadzhikistan Depression, Paleogene, I. A. Korobkov p. 89 pl. 3 f. 19.

†*Spondylopecten rogeri* sp. nov. Jurassic, Kutch, India, Agrawal (1) Ann. Cent. Ét. Doc. Paléont. No. 19 p. 73 pl. 8 f. 4a-b 5-7.

†*Streblochondria? maynci* sp. nov. Permian East Greenland, N. D. Newell Medd. Grønland 110 4 1955 pp. 17 20 pl. 1 f. 15, 16.

†*Tosapecten* gen. nov. p. 166, Pectinidae, genotype *Pecten (Velopecten) suzuki* Kobayashi, 1931; *T. suzuki paucicostatus* p. 169 pl. 5 f. 16; *T. suzuki*

inflatus p. 169 p. 5 f. 17-18; *T. pseudo-hiemalis mabarus* p. 170 pl. 5 f. 20 vars. nov.; *T. pseudo-hiemalis* p. 169 pl. 5 f. 19 sp. nov. Upper Triassic, Sakawa Basin, Shikoku, Japan, Kobayashi & Ichikawa.

†*Velata hartzi* sp. nov. Lias, Jurassic. E. Greenland, A. Rosenkrantz p. 79-83 f. 1-7; "*Velata*" *infrequens* p. 163 pl. 5 f. 21; "*V.*" *sumeriensis* p. 164 pl. 5 f. 22, 23 spp. nov. Upper Triassic, Sakawa Basin, Shikoku, Japan, Kobayashi & Ichikawa.

ANOMIACEA

Anomia ehippium note on mimicry L. Acolat (1); *Anomia sol* Reeve, new to Seychelles, Rost & T. Soot-Ryen; *A. cytaeum* anatomy, J. Tanaka.

†*Anomia* fossil byssus from the Miocene. Germany, A. Papp (2); *A. preolmstedti* sp. nov. Cretaceous. Alabama and Georgia, U.S.A., L. Stephenson (1) p. 242 pl. 41 f. 9-11.

OSTREACEA

†*Alectryossia haidingeriana* (Munich 1853), notes, H. Hölden (1).

Crassostrea virginica population variations in Long Island Sound, U.S.A., W. R. Coe; *C. virginica* spawning and egg production, Davis & Chanley; *C. virginica* osmotic behaviour, Fingerman & Fairbanks; *C. margaritacea* culture in South Africa, P. Korringa (1); *C. virginica* relative intensity of setting in Long Island Sound, U.S.A., Loosanoff & Nomejko; *C. virginica* influence of spermatogenic hormones on spawning and water flow, Nelson & Allison; *C. virginica* nature of the pigment cells and relation of their numbers to fungus disease, Stein & Mackin.

†*Exogyra alexandri* sp. nov. Jurassic. Maranchón, Castell, Concha & Revilla; *E. trivialis* sp. nov. Cretaceous. Antofagasta, Chile, Leanza & Castellaro p. 185 pl. 1 f. 2, 7; *E. complicata* sp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, I. G. Mahmoud p. 111 pl. 7 f. 1-10; pl. 8 f. 1-12; text-f. 52-54.

Gryphaea angulata, *G. virginica* general biology and culture, H. A. Cole in M. Graham p. 148-162; *G. angulata* chemical composition and nutritional value, Graça, Almeida & Costa; *G. cytochemical* studies on the eggs, H. Kobayashi; *G. angulata* breeding habits,

H. Vilela; *G. angulata* stage of sexual maturity in forms from the river Tagus, **H. Vilela** (2); *G. angulata* culture in Portugal, **H. Vilela** (1).

†*Liogryphaea oblonga* p. 191 pl.-text ii f. 1, 2; *L. ampla* p. 194 pl.-text ii f. 3, 4; spp. nov. Jurassic E. of Paris Basin, **Charles & Maubeuge** (1) Bull. Ser. géol. Fr. 6 2 4-6 1953; *Liogryphaea* revision of the species in the museum at Luxembourg, **Charles & Maubeuge**.

Ostrea edulis growth in rivers of north-west Spain **Andreu & Arté**; *Ostrea* cultivation, biology and note on the systematics, of Philippine species, **Blanco, Villaluz & Montalban**; *O. virginica* persistent activity cycles, **F. A. Brown, Ralph & others**; *O. edulis* general biology and culture, **H. A. Cole** in **M. Graham** p. 148-162; *O. edulis* control of pests and diseases, **Cole & Hancock**; *Ostrea* bacteriological control, **A. Grijs**; *O. gigas* guanine-deamination and nitrogen metabolism, **S. Ishida**; *O. gigas* artificial breeding in tanks, **Imai, Hatanaka**, et. al.; *O. gigas* distribution of uricase activity, **Ishida, Tsuzuki & Nitahara**; *O. edulis* experimental breeding in Japanese waters, **Imai, Sakai & Okada**; *O. denselamellosa* cytochemical studies on the eggs, **H. Kobayashi**; *Ostrea* cultivation in South Africa, **P. Koringa** (1); *O. edulis* mechanism of food movement in the gut of the Larva, **R. H. Millar**; *O. (Crassostrea) madrasensis* seasonal gonad changes, **K. V. Rao**; *Ostrea* effect of salt, vinegar and heat on the coliforms, **E. Salafranca**; *O. edulis* method for seed-oyster collecting, **M. Thiéblemont**; *O. edulis* reproduction in the region of Marennes-Oléron, France, **P. Trochon**; *O. gigas* content and distribution of cobalt, **Tsuchiya & Makuta**; *O. gigas* effects of 1A and fluoride on ciliary activity of gills, **I. Usuki**; *O. gigas* effects of cyanide and azide on ciliary activity of the gill, **I. Usuki** (1); *O. gigas* effect of malonate and 2, 4-dinitrophenol on cilia of *Ostrea gigas* gills, **I. Usuki** (2); *O. gigas* glycolytic intermediates in the gills, **Usuki & Okamura**; *Ostrea*: the effect on spatfall, of controlling barnacle settlement, **Waugh & Ansell**; *O. edulis* breeding experiments, **P. Walne** (2).

†*Ostrea konbo* **Mabuchi** (MS) from the Cretaceous of Hokkaido, Japan,

I. & S. Hayasaka; *O. pharaonis* sp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, **I. G. Mahmoud** p. 108 pl. 6 f. 7-12, text-f. 51; *O. edulis* quantitative aspects of filter feeding, **C. B. Jørgensen**; *O. (Lopha) ucheensis* sp. nov. Cretaceous. Russell & Dallas Counties, Alabama, U.S.A., **L. Stephenson** (1) p. 238 pl. 43 f. 1-5.

†*Pycnodonta magnei* sp. nov. Cretaceous, Algeria, p. 244 pl. 1, **S. Freneix** in **Freneix & Magné**.

TRIGONIACEA

†*Myophorella* (*Promyophorella*) *obsoleta* p. 2 pl. 1 f. 2, **Honmura**, Kochi Prefecture; *M. (P.) imamurai* p. 3 pl. 1 f. 3 **Kiritani**, Toyama Prefecture; *M. (P.?) hashimotoi* p. 3 pl. 1 f. 4-7, **Kurisaka**, Tokushima Prefecture; *M. (Haidaia) gracilentia* p. 4 pl. 1 f. 8, **Arinoki**, Kochi Prefecture spp. nov. Jurassic, Japan, **T. Kobayashi** (2).

†*Myophoria nakajimensis* p. 180 pl. 6 f. 4; *M. okunominetaniensis* p. 181 pl. 6 f. 7-9; *M. umenokiensis* p. 183 pl. 6 f. 6; *M. dieneri* p. 181 pl. 6 f. 1 spp. nov.; *M. dieneri longa* p. 181 pl. 6 f. 3, var. nov. Upper Triassic, Sakawa Basin, Shikoku, Japan, **Kobayashi & Ichikawa** (1).

†*Neoschizodus* (*Okunominetania*) *kawarensis* sp. nov. Triassic. Kyoto Prefecture, Japan, **K. Nakazawa** p. 245 pl. 4 f. 11-15.

†*Schizodus kennedyensis* sp. nov. Lower Permian Western Australia, **J. M. Dickins** Bull. 29 Com. Aust. dep. Nat. development Misc. res. geol. Geoph. 1956 p. 30 pl. v f. 1-10.

†*Setotrigonia* subgen. nov. of *Steinmannella* Cretaceous. Japan, **Kobayashi & Amano** p. 206.

†*Steinmannella* (*Setotrigonia*) subgen. nov. p. 206. subgenotype: *S. (S.) shinoharai* sp. nov. p. 207 pl. 15 f. 1-3; *S. (Yeharella)* subgen. nov. p. 200. subgenotype: *Trigonia japonica* **Yehara**: *S. (Y.) jimboi* p. 204 pl. 13 f. 4; *S. (Y.) lymani* p. 203 pl. 13 f. 3 spp. nov.; *S. (Y.) japonica obsoleta* var. nov. p. 202; p. 14 f. 4, 5. Cretaceous. Japan, **Kobayashi & Amano**.

Trigonia note on fossil and recent forms, **D. McMichael** (2).

†*Trigonia* (*Trigonia*) *elongata* var. *mebhaensis* p. 97 pl. 10 f. 2a, b; *T.* (*T.*) *e. habhoensis* p. 97 pl. 10 f. 4 9a-b, 10; **vars. nov.**; *Trigonia* (*Indotrigonia*) *katrolensis* sp. nov. p. 98 (see Bull. Soc. Géol. Fr. (6) 6 1-3), Jurassic, Kutch, India, Agrawal (1) Ann. Cent. Ét. Doc. Paléont. No. 19 1956; *T.* (*Indotrigonia*) *katrolensis* sp. nov. Kimmeridgian, Jurassic. Katrol Series, Cutch, India, S. Agrawal (2) p. 15 pl. 1 f. 2, 3a-b; *Trigonia* spp. in a new Albian deposit in the Cerbier's orientales, figs., Casteras & Villatti; *T. pocilliformis* from Mesozoic sandstone, Hokkaido, Japan, S. Imanishi; *T.* (*Minetrigonia*) *katayamai* sp. nov. Upper Triassic, Sakawa Basin, Shikoku, Japan, Kobayashi & Ichikawa (1) p. 184; *T.* (*Vaugonia*) from the Cayetano Formation, Jurassic, of Cuba, K. Krömmelbein; *T. douvillei* nom. nov. for *T. orientalis* H. Douville 1916, I. G. Mahmoud p. 120; *T. nalivkini* sp. nov. Rhaetian, Triassic. Koni Peninsula, Okhotsk Sea, Russia, I. Tuchkov p. 185 pl. 2 f. 1.

†*Trigonioides* dentition, hinge-structure and relation to similar pelecypods, T. Kobayashi (3).

†*Vaugonia yambarensis* sp. nov. Jurassic, Tetori series. Fukui Prefecture, Japan, T. Kobayashi (2) p. 1 pl. 1 f. 1a, b.

†*Yeharella* subgen. nov. of *Steinmannella* Cretaceous. Japan, Kobayashi & Amano p. 200.

UNIONACEA

Anodonta Lamarek 1799, gender feminine, Direction 42; *A. minima* Millet in the Corfe River, Dorset, A. G. Davis (4); *A. minima* Millet in Dorset, A. G. Davis (5); *A. cygnea* effect of 3, 4-benzopyrene, L. Haranghy; *A. piscinalis* and *A. cygnea* anatomy of the gills, R. Kilias; *A.* muscle structure of heart, Kirpichnikova; *A. cygnea* The rate of urine production, W. T. W. Potts; *A. cygnea* Osmotic and Ionic regulation, W. T. W. Potts (1).

†*Anodonta getica* sp. nov. Pliocene, Oltenia, Roumania, Roșculescu-Șoverth p. 205, 206 pl. 1 f. 1-4; *A.* (*Haasiella*) *saidovi* sp. nov. Triassic, Dzhunger depression, Russia, M. N. Saidov p. 96.

†*Anthracosia* (*Carbonicola*) *carbonaria* *A. cf. thuringensis* from the inferior Permian of Roumania, G. Răileanu.

Caelatura hantecoueri ruellani. Bgt. fig. digestion and production of H_2SO_4 , G. R. Fisk.

†*Carbonicola artifex* p. 45 pl. 1 f. vii, Text-fig. 2g; *C. declinata* p. 48 pl. 1 f. x text-fig. 2a; *C. torus* p. 54 pl. 1 f. xi-xiii text-fig. 2f; spp. nov. Carboniferous Pennine District, R. M. C. Eager (1).

†*Cuneopsis sinensis*, sp. nov. Triassic, Dzhunger depression, Russia, p. 94; *C. lacustris* sp. nov. Triassic Dzhunger depression Russia, p. 95, Saidov, M. N.

Elliptio mcMichaeli sp. nov. (*E. fraterculus* auct., in part. Non Lea, 1852). Choctawhatchee River, west of Miller Cross Roads, Florida, U.S.A., Clench & Turner p. 170 pl. 7 f. 1, 2.

Fusconia escambia sp. nov. Escambia river, near Century, Florida, U.S.A., Clench & Turner p. 152 pl. 7 f. 3, 4.

Haasodonta gen. nov. Unionidae subfam. Rectidentinae, genotype *Hyridella fannyae* Johnson 1948, Nautilus 62 47-48, D. F. McMichael Nautilus 70 2 Oct. 1956 p. 47 pl. 2 f. 3-5.

Lamellidens corrianus intracellular digestion of proteins, D. Kamat; *L. corrianus* phosphateses in digestive diverticula and amoebocytes, D. Kamat (1).

Leiovirgus guppyi aipianus subsp. nov. Aipiana on S. Joseph's River (= Angabunga River) New Guinea, D. F. McMichael Nautilus Philad. 70 2 Oct. 1956 p. 44 pl. 2 f. 1, 2.

Margaritana auricularia and *M. margaritifera* prehistoric finds in Saxony, R. Hertel.

Margaritifera problem of nomenclature, D. McMichael (1); *M. vulgaris* chemical investigations on pearl formation, Venkataraman & Chari.

†*Megalodon anmandykanensis* sp. nov. Vilighi, Okhotsk Sea, Russia. Rhoetian, Triassic, I. Tuchkov p. 187 pl. 2 f. 5.

Naiades, list of types in the Mus. Comp. Zool. Harvard, R. Johnson.

†*Palaeonodonta?* *carinata* sp. nov. Tatarian stage, Triassic? Sukhona River, Russia, M. Plotnikov (1) p. 95 pl. 10 f. 10.

†*Palaeomutela? inconcinna* sp. nov. Tatarian stage, Triassic? Sukhona river, Russia, **M. Plotnikov** (1) p. 91 pl. 10 f. 1, 2, 4, 5.

†*Plicatounio radieri* sp. nov. Cretaceous Gao, French Sudan, **J. Goumard** p. 253 text-f. 1-3.

Potamida corrugata alkaline phosphatase activity in the gills, **C. Nambudri**.

Unio Philipsson 1788, proposed validation, **A. E. Ellis**; *U. pictorum* and *U. tumidus* effect of 3, 4-benzopyrene, **L. Haranghy**; *U. Philipsson*, 1788, support for proposed validation, **H. Watson**.

†*Unio uralensis* p. 162 pl. 1 f. 1; *U. riphaeicus* p. 162 pl. 1 f. 2 spp. nov. Triassic. Eastern slope of the Urals, **B. Chernushev**; *U. biarmicus*; *U. tertius*; *U. carino-plicatus*; *U. grigorovici*; *U. serrato-radiatus* spp. nov. Quaternary lower Kama river basin, Russia, **G. Goretzki** p. 34; *U. wetzleri-formis* sp. nov. Miocene (Sarmatian) to Pliocene. Tebea, Brad-Baia Basin, Rumania, **N. Macarovici**; *U. wetzleri fiabellatiformis* from the Pliocene of the Salaj basin, Roumania, **M. Paucă**; *U. horgossica*; *U. simulator*; *U. bunbensis* spp. nov. Triassic, Dzhungar depression, Russia, **M. N. Saidov** p. 94.

Unionidae of B. H. and S. H. Wright, **W. J. Clench** (3); Unionidae of New Guinea, notes and figs., **D. F. McMichael**.

Velesunio sentaniensis (Haas), *V. ovatus* (Haas), *V. wilsonii* (Lea), (new combinations) Unionidae of New Guinea, **D. F. McMichael**.

Westralunio flyensis Tap-Can, New Guinea (new combination), **D. F. McMichael**.

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†*Anthonya apicalis shishijimensis* subsp. nov. Cretaceous, Shishi-jima and Miyanojima, southwest Japan, **M. Amano** p. 75 pl. 2 f. 6-12.

†*Astarte* (*Neocrassina*) *rajnathi* sp. nov. p. 433 Pl. 21 f. 1-4; *A. (Pruvostiella)* subgen. nov. p. 435 genotype: *A. (P.) freneixae* sp. nov. p. 436 pl. 21 f. 5, 6; Jurassic, Cutch, N.W. India, **S. Agrawal**; *A. notica* sp. nov. Cretaceous. Antofagasta, Chile, **Leanza & Castellaro** p. 197 pl. 3 f. 7; *A. choiensis* sp. nov. Cretaceous. Sakhalin Island, Siberia, **E. Liverovskaya** p. 97 pl. 13

f. 9, 10; *A. (Nicanella)* *extensa badiensis* var. nov. p. 106 pl. 10 f. 11 Callovian S. of Badi; *A. (Astarte)* *pandei* p. 102 pl. 10 f. 8, Callovo-Oxfordian; *A. (Pruvostiella)* *franeixae* p. 108; *A. (Neocrassina)* *rajnathi* p. 104 Callovo-Oxfordian spp. nov. of the Jurassic, Kutch, India, **S. K. Agrawal** (1) Ann. Cent. Ét. Doc. Paléont. No. 19 1956.

†*Crassatella chilena* sp. nov. Cretaceous. Antofagasta, Chile, **Leanza & Castellaro** p. 199 pl. 2 f. 2; *C. fruscorensis* sp. nov. [nom. nud?] in list p. 172, **M. Pasić** (1) Zborn. Radova Geol. Inst. Beograd. 4 1952.

†*Pacificor* subgen. nov. of *Venericardia* subgenotype *Venericardia mulleri* Verategui sp. nov. Lodo formation Paleocene, California, **P. Verastegui** Palaeontogr. Amer. 3 25 1953 pp. 17, 20 pl. 1 f. 6-9.

†*Pleurophorus siglanensis* sp. nov. Rhaetian, Triassic. Koni Peninsula, Okhotsk Sea, Russia, **I. Tuckov** p. 201 pl. 5 f. 6.

†*Pruvostiella* subgen. nov. of *Astarte* Jurassic. Cutch, India, **S. Agrawal** p. 435; *Pruvostiella* subgen. nov. of *Astarte* for *Astarte* (*Pruvostiella*) *franeixae* sp. nov. [q.v.], **S. K. Agrawal** (1) Ann. Cent. Ét. Doc. Paléont., No. 19 1956 p. 108.

†*Venericardia* (*Pacificor*) [subgen; nov. q.v.] *mulleri* p. 20 pl. 1 f. 6-9. *V. (P.) nelsoni* p. 21 pl. 2 f. 1, 5; pl. 3 f. 5; *V. (P.) susamaensis* p. 22 pl. 5 f. 1-4; *V. (P.) durhami* p. 23 pl. 7 f. 1, 2; *V. (P.) hertleini* p. 24 pl. 15 f. 1, 2, 6; *V. (P.) oregonensis* p. 25 pl. 9 f. 7-9; *V. (P.) aegentea* p. 25 pl. 1 f. 10-14; *V. (P.) diaboloensis* p. 27 pl. 5 f. 5-7, 7a; *V. (P.) gabbi* p. 30 pl. 19 f. 1, 5, 6; *V. (P.) weaveri* p. 31 pl. 21 f. 3, 4; *V. (P.) transversaria* p. 37 pl. 2 f. 2-4; *V. (P.) taliaferroi* p. 38 pl. 1 f. 15, 16; *V. (P.) lisa* p. 39 pl. 21 f. 1, 2; *V. (Glyptoactis)* *keenae* p. 41 pl. 1 f. 1-5; *V. (G.) memastersi* p. 42 pl. 13 f. 2, 3; *V. (G.) dominginea* p. 43 pl. 13 f. 1; *V. (G.) marksi* p. 44 pl. 19 f. 2-4; *V. (Venericor)* *simiana* p. 47 pl. 4 f. 1-4; *V. (Leuroactis)* *schencki* p. 50 pl. 4 f. 6-8; *V. (L.) alisoensis* p. 52 pl. 10 f. 1-3; *V. (L.) vokesi* p. 61 pl. 14 f. 1-3; *V. (L.) popenoci* p. 62 pl. 22 f. 1-3; spp. nov. Paleocene and Eocene of Peru, **P. Verastegui** Paleontogr. Amer. 3 25 1953.

CARDITACEA

Pleuromeris ultima sp. nov. 130 fathoms, off the Forty Fours, Chatham Islands, New Zealand, R. K. Dell p. 28 f. 23-25.

SPHAERIACEA

Corbicula variation due to environment, figs., T. Hayashi.

†*Cyrena microvenulina*; *C. karamaica* spp. nov. Cretaceous, Dzhungar depression, Russia, M. N. Saidov p. 92.

Pisidium obtusale (Lmk.) occurring in Craters and Gun pits on Bookham Common, C. F. J. Bensley; *P. pseudosphaerium* Favre and Iford, Sussex, G. P. Dance (1); *P. tenuilineatum*; *P. hibernicum*; *P. pseudosphaerium*; *P. liljeborgi* species from Czechoslovakia, V. Ložek (3).

†*Pisidium obtusale lapponicum* Clessin from Swanscombe, Kent, S. P. Dance; *P. vinecutianum* and notes of Pleistocene occurrence with associated species, H. Zeissler Arch. Molluskenk. Frankfurt a.M. 85 4/6 p. 197.

Sphaerium Scopoli, 1777, neuter gender, Direction 42.

Sphaerium corneum meiosis, H.-G. Keyl.

†*Sphaerium pseudolacustre* sp. nov., Triassic, Dzhungar depression, Russia. Saidov, M. N. p. 94.

CYPRINACEA

†*Anisocardia* (*Collignonocardia*) sub-gen. nov.; *A. (C.) simplex* sp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, I. G. Mahmoud.

†*Collignonocardia* sub-gen. nov. of *Anisocardia* Cretaceous: subgenotype *simplex* sp. nov. [see supra]. Moghara Massif, Sinai, Egypt, I. G. Mahmoud p. 121.

Cyprina islandica neurohormones, J. Welsh (1).

†*Cyprina moreti* sp. nov. p. 120 pl. 9 f. 26-30; *C. moreti orientalis* var. nov. p. 121 pl. 10 f. 1-4 Cretaceous. Moghara Massif, Sinai, Egypt, I. G. Mahmoud; *C. islandica* from the Quarternary of Sicily, A. Malatesta.

†*Vesicomya* (*Waisiuconcha*) *margotae* sp. nov. Mio Pliocene, Waisioe, Baton, Malay Arch., C. Beets Laid. geol. Meded. 17 1953 p. 255 pl. 1 f. 11-15.

DREISSENACEA

Dreissena polymorpha effect of 3, 4-benzopyrene on metabolism, L. Haranghy; *D. polymorpha* protozoan parasites of specimens from the Firth of Vistula, Poland, Z. Raabe.

†*Dreissena Kolesnikovi* sp. nov. Lower Kama basin, Quaternary Russia, Goretzki, G. I. p. 33.

†*Congeria ramphophora vösendorfensis* p. 159 pl. 13 f. 26-28; *C. partschi leobersdorfensis* p. 172 pl. 16 f. 8, 9; *C. partschi globosata* p. 172 pl. 16 f. 3; *C. partschi firmocarinata* p. 174 pl. 16 f. 7; *C. partschi carina-curvata* p. 174 pl. 16 f. 4; *C. subglobosa longitesta* p. 177 pl. 19 f. 2; subspp. nov., A. Papp Mitt. Geol. Ges. Wien. 44 1953; *C. praecornithopsis* p. 167 pl. 15 f. 1, 2; sp. nov., A. Papp Mitt. Geol. Ges. Wien. 44. 1953 *C. subdigitifera* sp. nov. nom. nud. Miocene. Paša Bunar Valley, Yugoslavia, P. Stevanović p. 27.

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Anodontia edentula (L.) new to Seychelles, Rost & T. Soot-Ryen.

Codakia (*Lentellarcia*) *interrupta* Lmk. new to Seychelles, Rost & T. Soot-Ryen.

†*Dentilucina doderleini* from the Pliocene of Sicily, A. Malatesta.

Jugonia (*Epicodakia*) *divergens* Phil. new to Seychelles, Rost & T. Soot-Ryen.

†*Lucina subporrecta* sp. nov. Cretaceous Antofagasta, Chile, Leanza & Castellaro p. 200 pl. 2 f. 6-9.

†*Miltha kolesnikovi* sp. nov. Miocene. Turkmenistan and W. Kazakhstan, Merklin & Nevasskaya p. 73 pl. 21 f. 4-7.

Mytiloides anabarensis sp. nov. Anabar region, Russia Turassic, Voronetz, N. S. & Laptinskaya, E. S. (1) C.R. Acad. Sci. Moscou 100 5 1955 956.

†*Sphaera rogeri* sp. nov. Callovian Kutch, India, Agrawal (1) Ann. Cent. Ét. Doc. Paléont. No. 19 1956 p. 111 pl. 11 f. 3-5.

†*Sphaeriola pruvosti* sp. nov. Callovian Kutch, India, Agrawal (1) Ann. Cent. Ét. Doc. Paléont. No. 19 1956 p. 114 pl. 10 f. 6.

†*Tancredia gigantea* sp. nov. Anabar region. Jurassic, Russia, Voronetz, N. S. & Laptinskaya, E. S. (1) C. R. Acad. Sci. Moscou 100 5 1955 p. 956.

ERYCINACEA

†*Cocculinella salisburyensis* sp. nov. Pliocene, Australia, N. H. Ludbrook p. 26 pl. 2 f. 1 [nom. nud. Tr. roy. Soc. S. Aust. 77 1954 p. 58.]

Coriureus neozelanicus sp. nov. 330 fathoms, S.E. of Pitt Island, New Zealand, R. K. Dell p. 30 f. 42, 43, 47.

Lasaea rubra filtering, feeding and digestion, Ballantine & Morton.

Notolepton triangulare sp. nov. 120–125 fathoms, N.E. of Kaingaroa, Chatham Islands, New Zealand, R. K. Dell p. 30 f. 41.

Rocheffortula quadrata sp. nov. 130 fathoms, off the Forty Fours, Chatham Islands, New Zealand, R. K. Dell p. 29 f. 44, 46.

Scintillona benthicola sp. nov. 330 fathoms, S.E. of Pitt Island, Chatham Islands, New Zealand, R. K. Dell p. 31 f. 40.

CHAMACEA

†*Agria falconi* sp. nov. Cretaceous, Jamaica, L. Chubb p. 13 pl. 2 f. 3; text-f. 3.

†*Biradiolites forbesi* sp. nov. Cretaceous, Jamaica, L. Chubb p. 15 pl. 3 f. 1–2.

Chama Linn. 1758, proposed addition to the "Official List of Generic Names in Zoology," L. R. Cox; *C. limbata* Lmk. new to Seychelles, Rost & T. Soot-Ryen.

†*Gyropleura shaviensis* sp. nov. Cretaceous, Jamaica. Apparent first record of genus from Western Hemisphere, L. Chubb p. 7 pl. 1 f. 4–6.

†*Hippurites (Orbignya) ceibarum* sp. nov. Cretaceous, Jamaica, L. Chubb p. 19 pl. 4 f. 9, 10 text-f. 4.

†*Matheronia semirugata* from the Cretaceous of Roumania, Atanasiu & Semaka; *M. rougonensis*, sp. nov. lower Valajuniau Grand Canon Verdon, Mongin & Trouve Bull. Soc. Géol. France 6 3 1–3 1953 p. 231 pl. iii f. 5 and text-figs. 3–4.

†*Mitrocaprina multicanaliculata* sp. nov. Cretaceous, Jamaica, L. Chubb p. 11 pl. 1 f. 14.

†*Monopleura jamaicensis* sp. nov., Cretaceous, Jamaica, L. Chubb p. 6 pl. 1 f. 1–3.

†*Parastroma maldonensis* sp. nov. Cretaceous, Jamaica, L. Chubb p. 21 pl. 5 f. 1–6.

†*Plagiptychus trechmanni* p. 8 text-f. 1, 2 (placed by Trechmann in *Caprina jamaicensis* Whitfield); *P. zansi* p. 9 pl. 1 f. 7–9; *P. minor* p. 10 pl. 1 f. 10–13 spp. nov. Cretaceous, Jamaica, L. Chubb.

†*Praeradiolites verseyi* sp. nov. Cretaceous, Jamaica, L. Chubb p. 14 pl. 2 f. 4–6.

Radiolitidae. List of Cretaceous forms from the North Pyrenees, G. Astre (1).

†*Rudistes* early work by Lapeirouse, G. Astre.

†*Sauvagesia mcgrathi* p. 17 pl. 3 f. 3–4; *S. fluminisagni* p. 18 pl. 4 f. 3, 7, spp. nov. Cretaceous, Jamaica, L. Chubb.

†*Thyrastylon* gen. nov. p. 36 Radiolitidae, genotype: *Radiolites adhaerens* Whitfield, 1897. Also includes *Biradiolites coryi* Trechmann, 1924; *B. semiannulosus* Trechmann, 1924, from Jamaica and *B. persicus* Douvillé 1904 from Persia. Cretaceous, L. J. Chubb (1).

CARDIACEA

†*Arcicardium bosporanum* sp. nov. Pliocene, Kerchenski, Crimea Peninsula, Russia, A. Eberzin p. 19 pl. 1 f. 2–4.

†*Caladacna steindachneri euxinica* subsp. nov. Pliocene, Kerchenski, Crimea Peninsula, Russia, A. Eberzin p. 30 pl. 5 f. 11–14.

Cardium edule factors affecting growth-rate, H. Cole; *C. edule* general biology and culture, H. A. Cole in M. Graham p. 168–175; *C. edule* observations on variation, P. Mars; *C. edule* in Iceland, fig., I. Oskarsson (1).

†*Cardium transcaucasicum* p. 127 pl. 2 f. 1, 2; *C. agdschakendense* p. 129 pl. 1 f. 4, 5; Azerbaijan; *C. gulistanense* p. 131 pl. 2 f. 3, 4; *C. dimidiatum* p. 132 pl. 2 f. 5–8; Armenia spp. nov. Cretaceous. Caucasus, Russia, N. Bobkova; *C. sartasense* sp. nov. Miocene. Turkmenistan and W. Kazakhstan, Merklin & Nevesskaya p. 46 pl. 8 f. 14–17; *C. (Trachycardium) ochileanum* sp. nov. Cretaceous. Ochillee Creek, Georgia, U.S.A., L. Stephenson (1) p. 242 pl. 41 f. 1, 2.

†*Caspia plaekovalevskii* sp. nov. Lower kamar basin Quarternairy Russia, Goretzki, G. I. p. 33.

†*Caspicardium* gen. nov. Cardiidae, Turkmenia, Asserbaydjan, Astagyeva, K. A. Bull. Soc. Nat. Moscou. Geol. 30 3 1955 94.

†*Chartoconcha tenuissima* sp. nov. Pliocene. Kerchenski, Crimea Peninsula, Russia, A. Eberzin p. 23 pl. 5 f. 5a, b.

†*Conocardium howitti* sp. nov. Devonian, Buchan Caves limestone, Victoria, Australia, J. A. Talent p. 51, f. 15; *C. angelicum* sp. nov. p. 67 pl. 7 f. 23-25. Marble Creek, Thomson River, Victoria, Australia; *C. cresswelli* p. 68 nom. nov. for *Pleurorhynchus bellulus* Cresswell (non Barrande) 1893, Talent & Philip.

†*Corculum* (*Ctenocardia*) *weberi* sp. nov. Mio-Pliocene Waisioe, Buton Malay Arch., C. Beet Leid. geol. Meded. 17 1953 p. 253 pl. 1 f. 8-10.

†*Cypricardinia multilamellosa* sp. nov. Devonian, Buchan Caves limestone, Victoria, Australia, J. A. Talent p. 50 pl. 4 f. 7.

†*Didacna devexa* Salo-Manitchluter-rivers Quaternary Russia? p. 35; *D. emendata* Primanu part of Pricaspian Quaternary Russia p. 35; *D. tanaitica* Don and Warsaw Manich Quaternary. Russia p. 40; *D. parvuloides* Premanich part of Pricaspian Quaternary. Russia p. 35, spp. nov. Popov, G. I. (1) Bull. Soc. Nat. Moscou geol. 30 7 1955; *D. tanaitica* Dono-Manich bay, Russia. Quaternary, p. 144; *D. emendata* Quaternary, Drevneevski horizon, Russia Quaternary p. 145; *D. issitzini* Quaternary, Urundzhiksk horizon, Russia, p. 145; *D. sokolovi* Quaternary, Drevneevski horizon. Russia p. 145, spp. nov. Popov, G. I. C.R. Acad. Sci. Moscou. 101 1 1955; *D. adacnoides* p. 78 pl. 1 f. 11-14; pl. 2 f. 9; *D. plana* p. 78 pl. f. 4-7; p. 2 f. 6; *D. porsugelica* p. 78 pl. 1 f. 8-10; pl. 2 f. 8 spp. nov. Khazar deposits, Quaternary. Cheleken, Russia, Turkmenia, L. A. Nevesskaya.

Fragum fragum (L.) new to Seychelles, Rost & T. Soot-Ryen.

†*Granocardium* (*Ethmocardium*) *pomeyrol* from New Caledonia, now thought to be Cretaceous, R. Pomeyrol.

Hemicardia nivale Reeve new to Seychelles, Rost & T. Soot-Ryen.

Hippopus hippopus spawning habits, S. Wada.

Laevicardium australe Swby. new to Seychelles, Rost & T. Soot-Ryen; *L. subdiprosopum* sp. nov. nom. nud. Miocene, Yugoslavia, P. Stevanović p. 26; *L. praeinflatum* p. 193 pl. 22 f. 4-6; *L. edlaueri* p. 194 pl. 23 f. 7-9; spp. nov. *L. ornatum biseptum* subsp. nov. p. 196 pl. 22 f. 23-25, A. Papp Mitt. geol. Ges. Wien. 44 1953.

†*Liopistha elegantulata* nom. nov. for *Cardium elegantulum* Roemer, 1849 (non Beck, 1842) Austin Chalk, Cretaceous, Texas, H. E. Vokes (1) p. 764.

†*Monodacna viennensis* p. 200 pl. 22 f. 19-21; *M. vösendorfensis* p. 201 pl. 13 f. 1-3; spp. nov., A. Papp Mitt. Geol. Ges. Wien. 44 1953; *M. euxinica* sp. nov. Primarily part of Pricaspian Quaternary Russia 1955, Popov, G. I. (1) p. 35.

†*Oraphocardium alatoplanum infra-cimmericum* p. 69 pl. 12 f. 13, 14, Kerchenski, Crimea; *O. alatoplanum transcausicum* p. 69 pl. 12 f. 5-9 Duab, south of Samarkand. subsp. nov. Pliocene Russia, A. Eberzin.

†*Oxydacna bugutyricea* p. 36 pl. 6 f. 6a, b; *O. tertia* p. 37 pl. 6, f. 9-12; Kuban Province; *O. (?) ambræ* p. 39 pl. 7 f. 1, 2 Ambra river spp. nov. Pliocene Russia, A. Eberzin.

†*Panticapaea praeduboisii* sp. nov. Pliocene. Kerchenski, Crimea Peninsula, and Kuban Russia, A. Eberzin p. 42 pl. 7 f. 3-8.

†*Paradacna andrussowii* p. 53 pl. 9 f. 18a, b; *P. deformis* p. 55 pl. 9 f. 12-14 spp. nov. Kerchenski Crimea and Kuban; *P. deformis kubanica* subsp. nov. Kuban Pliocene Russia, A. Eberzin.

†*Pteradacna pracedentula* sp. nov. Kerchenski, Crimea, Russia. Pliocene, A. Eberzin p. 88 pl. 15 f. 1-2.

†*Stenodacna praeangusticostata* sp. nov. Kuban. Kerchenski, Crimea, Russia. Pliocene, A. Eberzin p. 91 pl. 16 f. 2-7.

Trachyeardium alternatum Swby.; *T. leucostomum* Boru; *T. orbita* Swby.; *T. pectiniform* Born.; *T. rubicundum* Reeve new to Seychelles, Rost & T. Soot-Ryen.

Tridacna squamosa and *T. serrifera*, spawning habits, S. Wada; *T. deresa* Symbiosis, Habitat, Feeding, figs., C. M. Yonge.

VENERACEA

Callista brevisiphonata as a cause of food poisoning, Asano, Takayamagi & Kitamura.

†*Callista chinensis takagii* subsp. nov. Miocene Noto Peninsula, Japan, K. Masuda Fr. Proc. Palaeont. Soc. Japan N.S. No. 20 1955 p. 121 pl. 19, f. 8.

†*Clementia japonica* sp. nov. Miocene Noto Peninsula, Japan, K. Masuda Tr. Proc. Palaeont. Soc. Japan N.S. No. 20 1955 p. 121 pl. 19 f. 8.

Dosinia exolete general note, I. Kristensen.

†*Dosinia chikuzenensis* Nagao, systematic consideration, p. 109; *D. nomurai* Otuka, and *D. nagaii* Otuka, proposal to place these in the synonymy of *D. chikuzenensis* p. 112, K. Hirayama.

†*Dosiniopsis jerofeievi* sp. nov. Cretaceous. Sakhalin Island, Siberia, E. Liverovskaya p. 98 pl. 13 f. 7, 8.

Gafrarium aduncum Römer new to Seychelles, Rost & T. Soot-Ryen.

Katelsia (*Nipponomaria*) [q.v.], J. Itoigawa.

Meretrix meretrix lusoria guanine-deaminating activity and nitrogen metabolism, S. Ishida; *M. meretrix lusoria* distribution of the uricase activity and aspects of purine metabolism, Ishida & Tsuzuki; *M. meretrix lusoria* cytochemical studies on the eggs, H. Kobayashi.

Nipponomarcia, should be separated as a genus from *Katelsia*, for *N. nakamurai* Ikebe as type, J. Itoigawa Venus 18 3 1955 178, 184.

Petricola pholadiformis functional morphology, R. Purchon.

Pitas (*Pitarina*) *obliquata* Hanley new to Seychelles, Rost & T. Soot-Ryen.

†*Similivenerus insolida* nom. nov. for *Venus solida* Deshayes 1825 non Schroeter 1802 A. M. Keen J. Paleont. 28 2 1954 p. 218.

Tapes litteratus L. one broken ex. only; *T. deshagesi* H. new to Seychelles, Rost & T. Soot-Ryen; *T. semidecussata* polymorphism, figs., R. F. Shaw.

†*Tapes* (*Amygdala*) *miyamurensis* sp. nov. Miocene, Kyoto Prefecture, Japan, J. Itoigawa p. 189 pl. 1 f. 2, 3.

Tivela stultorum population fluctuations in California, W. R. Coe.

Venerupis philippinarum distribution of the uricase activity, Ishida & Tsuzuki; *V. philippinarum* guanine-deamination and nitrogen metabolism, S. Ishida; *V. semidecussata* cytochemical studies on the eggs, H. Kobayashi; *V. semidecussata* population density effects, S. Ohba.

Ventricolaria nom. nov. for *Ventricola* Römer 1867 with type *Venus rigida* Dillwyn (Caribbean sp.), A. M. Keen J. Paleont. 28 2 1954 p. 218.

Venus mercenaria persistent activity cycles, F. A. Brown, Ralph & others; *V. mercenaria* spawning and egg production, Davis & Chanley; *V. mercenaria* acclimatized in Brittany, L. Marteil; *V. mercenaria* environmental effect on growth, Pratt & Campbell; *V. mercenaria* effects of acetylcholine on the isolated heart, J. Welsh; *V. mercenaria* cytochemistry, S. I. Zacks.

†*Venus sobieskii*; *V. sobieskii* var. *media*, from the Miocene of the south west area of the Russian Platform, L. Kudrin.

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Atactodea trigona Desh. new to Seychelles, Rost & T. Soot-Ryen.

Caecella chinensis artificial activation of the eggs, N. Sawada.

†*Cymbophora ochilleana* sp. nov. Cretaceous. Ochillee Creek, Georgia, U.S.A., L. Stephenson (1) p. 244 pl. 44 f. 1-3.

Donacilla seychellarum sp. nov. Seychelles (Mahé) H. Rost and T. Soot-Ryen a single specimen, Acta borealia (A) No. 8 1955 p. 21 text fig. 3 [v. poor].

†*Eastonia rugosa* in ancient rejectamenta of the Rhone Delta, M. Paulus.

Macra Linn. 1767, gender feminine, Direction 42.

Macra sorallina cinerea thrown up in quantity after storm, L. W. Grensted; *M. sulcataria* distribution of uricase activity, Ishida, Tsuzuki & Nitahara; *Macra*; experimental activation of the egg, K. Iwata; *M. stultorum* mass mortality at Lowestoft, Nov. 21, 1950, H. E. Jenner.

†*Macra vitaliana turkmena* subsp. nov. Miocene. Turkmenstan, Merklin & Nevesskaya p. 92 pl. 27 f. 1-6.

Pteropsella nom. nov. for *Pteropsis* Conrad, 1860 (non Rafinesque, 1814), H. E. Vokes (1) p. 763.

Spisula use of sodium taurocholate as a lysin, J. George.

TELLINACEA

†*Abra alba euzinica* subsp. nov. Miocene. Turkmenstan and Western Kazakhstan, Merklin & Nevesskaya p. 92 pl. 23 f. 1-5.

Donax population fluctuation in California, W. R. Coe; *Donax* polymorphic colouration, D. Nolte; *D. (Latona) cuneata* L. D. (*L. faba* Gmch. new to Seychelles, Rost & T. Soot-Ryen.

Jactellina (Loxoglypta) clathrata Desh. = *rhomboidea* Q. and G. non Gmel. *Tellina perrieri* Bertin is now *Pharaonella perrieri* Bertin (syn. is *T. consanguinea* Sow). *T. parvula* Bertin is *Semelangulus pervula* fam. Sunedidae, T. Habe (1).

Leptomya rostrata H. Ad. new to Seychelles, Rost & T. Soot-Ryen.

†*Linearia orientalis* sp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, I. G. Mahmoud p. 128 pl. 12 f. 6-8 text-f. 56.

Macoma baltica ecology, N. Miloslavskaya (1).

†*Macoma nagai* sp. nov. Tertiary, south of Watase, Hikoshima, Yamaguchi Prefecture, Japan, K. Hirayama p. 85, p. 115 pl. 8 f. 27.

Psammotaea violacea Lmk. new to Seychelles, Rost & T. Soot-Ryen.

Quadrans gargadia L. new to Seychelles, Rost & T. Soot-Ryen.

Sanguinolaria diphos amino acids of the crystalline style, V. Venugopalan.

Scrobicularia plana mechanism of siphon extension, Chapman & Newell.

Semelangulus kurodai (Makiyama) Japan, is closely allied to *S. parvula* (Bertin), T. Habe (1).

Tellina serrata Renier "[1804]", specific name, as used in above combination, rejected, Opinion 427.

Tellina perrieri Bertin, *T. gibba* Bertin, *T. parvula* Bertin, nomenclature and systematic notes, T. Habe (1).

†*Tellina hamadai* p. 122 pl. 19 f. 10-11; *T. notaensis* p. 122 pl. 19 f. 12; spp. nov. Miocene Note Peninsula, Japan, K. Masuda Fr. Proc. Palaeont. Soc. Japan N.S. No. 20 1955.

Thyellisca nom. nov. for *Thyella* Adams, 1866 (non. Wallengren, 1858), H. E. Vokes (1) p. 762.

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†*Cultellus orientalis* sp. nov. Eocene. Northern Aral, Russia, A. K. Alexeiev p. 23 pl. 3 f. 1, 4.

Glauconomidae of Japan, figs., Taki & Habe.

Scissuliina dispar Conrad, new to Seychelles, Rost & T. Soot-Ryen.

Solen candidus Renier, "[1804]", the specific name as used in the above combination, rejected, Opinion 427.

Solen siliqua experiments on foot muscle, Bargoni & Atzori.

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Panope bitruncata Conrad, A living specimen taken at St. Augustine, Florida, M. C. Johnson fig.

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†*Caryocorbula? veatchi* p. 245 pl. 44 f. 4-9; *C.? georgiana* p. 246 pl. 44 f. 14-16 spp. nov.; *C.? veatchi longa* p. 246 pl. 44 f. 10-13 var. nov. Cretaceous. Georgia and Alabama, U.S.A., L. Stephenson (1).

†*Cuneamya holmesi* sp. nov. Silurian Pentland Hills nr. Edinburgh, A. Lamont Proc. roy. Soc. Edinb. 65B 3 1954 p. 275 pl. 1 f. 5.

Mya Linn. 1758, gender feminine, Direction 42.

Mya arenaria population dynamics, J. C. Ayers; *M. arenaria* mechanism of siphon extension, Chapman & Newell; *M. arenaria* and the natural control of its predator *Lunatia heros* by *Nassarius trivittatus*, A. H. Clarke jnr. (1).

Nya pictorum typographical error for *Mya pictorum* H. Watson Bull. zool. Nom. 12 1956 p. 308.

†*Platyodon klinghardti* from the Miocene of West Africa, Darteville & Roger; *P. nipponica* sp. nov. Miocene. Japan, Uozumi & Fujie p. 361-368 pl. 4 f. 1-6; pl. 5 f. 4-6.

†*Pseudomyalina* gen. nov. Myalinidae genotype *obliqua* sp. nov. Lower Permian, Western Australia, J. M. Dickins Bull. 29 Com. Aust. dep. Nat. development Min. res. Geol. Geoph. 1956 p. 25, 26 pl. iii f. 1-7 text fig. 2.

GASTROCHAENACEA

Gastrochaena rostrata from driftwood at Manat, Philippine Islands, G. Ablan (1).

ADESMACEA

Barnea manilensis collected from driftwood at Manat, Philippine Islands, G. Ablan; (1) *B. candida* Oology (and technique) and development, J. Pasteels.

Martesia striata note on the biology, Ganapati & Nagabhushanam; *M. striata* digestive enzymes, Ganapati & Nagabhushanam (1); *M. striata* water filtration, R. Nagabhushanam (1); *M. striata*—anatomy and biology, R. Purchon (2).

Pholadidae of Japan, figs., Tahi & Habe.

Pholas dactylus luminescence, J. & J. M. Gaillard.

Teredo Linn. 1758, gender feminine Direction 42.

Teredo navalis shell structure and ecology, P. Deschamps; *T. navalis* note on its biology, Ganapati & Nagabhushanam; *Teredo* biological studies, C. E. Lane; *T. (Psiloteredo) tondiensis* sp. nov. port of Tondi, South India, Nair & Gurumani; *T. navalis*, methods of control, L. Popescu; *T. navalis* in coastal waters of Maryland, U.S.A., Scheltema & Truitt; *Teredo* note on life history and control, F. G. W. Smith; *T. (Lyrodus) samoensis* occurrence round N. China coast. Morphology, Tchong, Tsi & Li.

Xylophaga washingtona Bartoch and notes on the genus, R. D. Turner.

PANDORACEA

†*Cercomya peruviana* sp. nov. Jurassic Nasca area Peru, L. R. Cox (4) J. Pal. 30 5 1956 p. 1185 pl. 128 f. 7.

Ectorizma neozelanica sp. nov. 300 fathoms, east Otago coast, New Zealand, R. K. Dell p. 43 f. 49.

†*Homomya antofagastensis* p. 195 pl. 4 f. 1, 6, 7; *H. subandina* p. 195 pl. 4 f. 3-5; spp. nov. Cretaceous. Antofagasta, Chile, Leanza & Castellaro.

Mactromya mehrotrai sp. nov. Callovo-Oxfordian Kutch, India, Agrawal (1) Ann. Cent. Ét. Doc. Paléont. No. 19 1956 p. 116 pl. 11 f. 7a-b.

Pandora inaequalis and *P. pinna* structure and adaptation figs., J. A. Allen; *P. albida* parasitic castration by *Cercaria melanocystea*, Arvy & Gaillard.

†*Pholadomya japonica* sp. nov. Cretaceous, southwest Japan, M. Amano p. 80 pl. 2 f. 1-5.

†*Pleuromya harringtoni* sp. nov. Cretaceous. Antofagasta, Chile. Leanza & Castellara p. 194 pl. 4 f. 2; *P. waka-sana* sp. nov. Nabae Group, Triassic. Kyoto Prefecture, Japan, K. Nakazawa p. 239 pl. 3 f. 1-3.

†*Sanguinolites? inflexum* sp. n. Carboniferous Frankenberg, E. Paproth Paléont. Z. 27 3-4 1953 p. 187 pl. 12 f. 8.

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Cuspidaria morelandi p. 39 f. 48, 50; *C. morioria* p. 40 f. 52, 53 spp. nov. 130 fathoms, east of Forty Fours, Chatham Islands, New Zealand, R. K. Dell.

†“*Cuspidaria*” *ayabensis* sp. nov. Nabae Group, Triassic, Kyoto Prefecture, Japan, K. Nakazawa p. 239 pl. 3 f. 1-3

Euciroa delectabile sp. nov. 330 fathoms, S.E. of Pitt Island, Chatham Islands, New Zealand, R. K. Dell p. 42 f. 58, 59.

†*Praecardiomya* gen. nov. Genotype: *P. sinaitica* [as *sinaitica* in title] sp. nov. Cenomanian, Cretaceous. Eastern Sinai, Egypt, G. H. Awad (1) p. 7 f. 1-8.

Ptychomya Agassez interpretation of the Genus, A. Chavan.

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Brechites penis general anatomy, R. Purchon (1).

CEPHALOPODA

RECENT

Cephalopoda. Locomotion of pelagic forms, **Anon (1)**; *C. food* of Sperm Whales, **Akimushkin (1)**; Cephalopoda of Eastern Seas of Russia, **Akimushkin (2)**; Physiology of nutrition, **W. v. Buddenbrock** pp. 279-283; Spermiogenesis in some species, **A. Franzén (1)**; Ink ejection in the escape reaction of a squid, **D. Hall**; On the method of, and changes in coloration, **W. Holmes**; Deep-sea photographs as a means of learning more about squids, **N. Mackintosh**; Origin, development and structure of cephalopod eyes, **G. da F. Sacarrão (1)**. Notes on various cephalopods, **H. Wendt**.

Architeuthis from Japan. Structure of unidentified species, **E. Iwai**; *A. dux* specimens from the Trondheim fjord 20 1954, and one 1928, fig., **E. Sivertsen**.

Argonauta Linn. 1758, gender masculine, **Direction 42**.

Argonauta argo organs associated with optic tract, **Boycott & Young (1)**;

Argonauta notes on the various species, **A. H. Jones**.

Bathypolypus sponsalis P. and H. Fischer common in the Mediterranean. A study of the species, 12 figs., **K. Wirz**.

Desmoteuthis hyperborea (Steenstrup) is identical with *Teuthovenia megalops* (Prosch) which represents a younger stage of *D. hyperborea*. The species should now be known as *D. megalops* (Prosch), **B. J. Muus p. 7**.

Doryteuthis siborgae p. 146 Bay of Sanama, E. coast of Sula Besi f. 16, 18 pl. 1 f. 4; *D. pickfordi* p. 149 f. 19-21 pl. 1 f. 3 S. coast of Eastern Flores, spp. nov., **W. Adam (1)** Silboga Exped. Monogr. 35c 1954.

Loligo pealii organs associated with optic tract, **Boycott & Young (1)**; *L. pealei* blood pigments, **E. Eliassen**; *Loligo* cation transport in giant axons, **Hodgkin & Keynes**.

Lolliguncula abulati sp. nov. Red Sea, "Calypso", **W. Adam** Ann. Inst. Oceanogr. Monaco N.S. 30 1955 p. 185 pl. 1 f. 1.

Taonius unidentified specimen from Japan, **E. Iwai**.

Tremoctopus violaceus organs associated with optic tract, **Boycott & Young (1)**; *Tremoctopus* chromatophore genesis, **G. Sacarrão (2)**.

Eledone moschata blood pigments, **E. Eliassen**; *E. cirrhosa* spermiogenesis, **A. Franzén (2)**.

Galiteuthis armata probable first record from Hokkaido coasts, Japan, **T. Hikita**; *Galiteuthis* taken from stomach of sperm whale in the North Pacific, **E. Iwai**.

Macrotritopus problems of classification, **W. J. Rees (1)**.

Nautilus an abnormal shell, fig., **J. Sornay**; *Nautilus undosus* J. de C. Swby., fig., **J. S. Turner**.

Octopus vulgaris reactions to shape and duration of memories, **Boycott & Young**; *O. vulgaris* organs associated with optic tract, **Boycott & Young (1)**; *O. vulgaris* Lmk. A memory system, **Boycott & Young (2)**; *O. vulgaris* blood pigments, **E. Eliassen**; *O. vulgaris* experiment on neuro-sensory cells, figs. **Martoja & May**; *O. vulgaris* brachial innervation compared with *Sepiola rondeleti*, **Martoja & May (1)**; *O. vulgaris* innervation of arms, **Rossi & Graziadei**; *O. vulgaris* note of legends associated with it, **W. Tavalga**; *O. vulgaris* tactile sense of blinded animals, **M. J. Wells**; *O. vulgaris* regulation of circulation, **J. de Wilde**; *Octopus* visual responses before and after training, **J. Z. Young**.

Ommastrephes pteropus, use of deep-sea photography to learn more of squids, **N. Mackintosh**.

Sepia Linn. 1758, gender feminine, **Direction 42**.

Sepia officinalis visual perception of movement, **P. Boulet**; *S. officinalis* L. **P. Boulet (1)**; *S. officinalis* organs associated with the optic tract, **Boycott & Young (1)**; *S. officinalis* blood pigments, **E. Eliassen**; *Sepia* cation transport in giant axons, **Hodgkin & Keynes**; *S. officinalis* potassium permeability of giant axons, **Hodgkin & Keynes (1)**; *S. officinalis* washed up in numbers at Lowestoft, **H. E. Jenner**; *S. officinalis* experiments on the liver, **Jullien, Cardot, Ripplinger & Claudéy**; *S. officinalis* chromatophores and colour change, **G. Sacarrão**; *S. officinalis* comparison of redox-pigments with ommo-

chrome group of insect pigments, **I. Schwinck**; *S. officinalis* early development, **H. Wendt**.

Sepiola rondeleti brachial innervation compared with *Octopus vulgaris*, **Mar-toja & May** (1).

Teuthowenia megalops (Prosch) is identical with and represents a younger stage of *Desmoteuthis hyperborea* (Steenstrup). The species should now be known as *Desmoteuthis megalops* (Prosch), **B. J. Muus** p. 7.

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Spanish Cretaceous Cephalopoda, **J. Bataller** (1); Cretaceous cephalopods from Muzo emerald mines, Boyaca, Colombia, S.A., **H. Bürgl** p. 384 pl. 2; Ammonite succession in the Blue Lias of Somerset, England, **D. Donovan** (1); Cephalopoda of the Pennsylvanian of America, **A. G. Unklesbay**.

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†*Anarcestina suborder* nov. of Ammonoidea, **Miller & Furnish** J. Paleont. 28 5 1954 p. 687.

†*Anaspyroceras cultellus* sp. nov. Siluro-Devonian. Marble Creek, Thomson river, Victoria, Australia, **Talent & Philip** p. 69 pl. 6 f. 7-9.

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†*Arieticeratinae subfam. nov.* of *Hildoceratidae*, Hyatt. New name for *Sequenziceratidae* Spath 1924, **M. Howarth** p. 166.

†*Arnioceras arniokridion* nom. nov. for *Ammonites kridion* Quenstedt 1858, non Hehl in Zieten, 1830, **O. Walliser** p. 207.

†*Aspidoceratacea Superfam. nov.* Ammonoidea. *Aspiroceratidae* Zittel, *Peltoceratidae* Spath and *Berriassellidae* Spath, **Sazonov, N. T.** Bull. Soc. Nat. Moscou 30 4 1955 p. 117.

†*Asteroceras marstonense* at Marston Magna, a note, and its occurrence at Vale of Marshwood, **W. D. Lang**.

†*Aturia* cf. *alabamensis* (Morton) in The Eocene of Cyrenaica, figs., **A. Haas** (1); "*Aturia*" *matsushitai* sp. nov. Palaeogene, Kyushu Island, Japan, **T. Kobayashi** (1) p. 243 text-f. a-d.

†*Ammonites listeri* Sowerby (J.), 1812; *A. sphaericus* Sowerby (J.), 1814. These specific names validated, **Opinion 420**; *A. mammillatus* Schlotheim, 1813 to be interpreted by reference to the specimen figured by Spath (L.F.) in 1923 as figures 3a and 3b on Pl. 4 of *Monograph of the Gault Ammonoidea* and to be the type species of the genus, *Douvilleicerias* de Grossouvre, 1893, **Opinion 422**; *A. cymodoce* d'Orbigny, 1850, the nominal species to be interpreted by the lectotype selected in 1896, that is the specimen illustrated by d'Orbigny as f. 3 and 4 on his plate 202, **Opinion 426** p. 260; *A. royerianus* d'Orbigny, 1841, suppression of the specific name; *A. cornuelianus* d'Orbigny, 1841 (specific name of type species of *Chelonicerias* Hyatt), the specific name validated, **Opinion 428**.

†*Bactritina* suborder nov. of Nautiloidea **Miller & Furnish** J. Paleont. 28 5 1954 p. 687.

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†*Balearites labrousseae* p. 144 pl. 11 f. 11; *B. nolani* p. 144 pl. 6 f. 11; *B. paramhansi* p. 145 pl. 11 f. 6; *B. shankariae* p. 146 pl. 11 f. 12; *B. tuberculatus* p. 146 pl. 11 f. 3; *B. koechliniformis* p. 147 pl. 10 f. 7 spp. nov.; *B. balearis unituberculata* var. nov. p. 142 pl. 11 f. 5 Lower Cretaceous, south east France, **S. Sarkar**.

†*Belemnitella mucronata* [Schloth] mut. senior Nowak in S. Bayern and notes on zone, figs., **H. Hagn**; *Belemnitella* abnormalities of structure in two species, **S. Koltuipin**.

†*Belemnites listeri* Mantell, 1822, specific name suppressed; *B. minimus* Miller (J.S.), 1826, specific name validated, **Opinion 430**; *Belemnites* microscopical examination, **G. Göke**; *B. (Hibolites) escragnollensis* sp. nov. Neocomian maritime Alps, **M. Delattre** Bull. Sci. géol. Fr. 6 2 4-6 1953 p. 283 pl. xiv f. 1-3; *B. cornuelianus* note on systematics, **V. Stchepinsky**.

†*Belemnoteuthis rosenkrantzi* sp. nov. Cretaceous, West Greenland, **T. Birke-lund** p. 17 pl. 1 f. 9.

†*Berbericeratinae* subfam. nov. of Macrocephalitimidae, to include (with certain reservations) *Berbericerias*, *Schwandorfia* and *Krumbeckia* Jurassic **G. Westermann** p. 263.

†*Beudanticeras revoili elegans* var. nov. Cretaceous, Moghara Massif, Sinai, Egypt, **I. G. Mahmoud** p. 98 pl. 5 f. 19, 20.

†*Biasaloceras sauchum* p. 77 pl. 4 f. 13; *B. striatum* p. 78 pl. 4 f. 14 spp. nov. Lower Cretaceous. Crimea and North Caucasus, **V. Drushchitz**.

†*Bifoveoceras* gen. nov. Nautiloidea genotype: *Orthoceras bifoveatum* Noetling, 1884. Cambrian, Estonia, **Z. Balashov** p. 237 pl. 3 f. 1-3.

†*Bigotitinae* subfam. nov. of Parkinsoniidae; Type: *Bigotites haugi* (Nicol.) Jurassic, **G. Westermann** p. 271.

†*Bisiphytes* (*Cenoceras*) *imlayi* Alaska p. 322 pl. 35 f. 1, 2; *B. (C.) lupheri* Wyoming p. 323 pl. 34 f. 3, 4: spp. nov., Riedon formation Jurassic, **B. Kummel** J. Paleont. 28 3 1954 p. 320.

†*Burenoceras barnesi* sp. nov. Ordovician Texas, **Unklesbay** (1) J. Paleont. 28 5 1954 pp. 637 641 pl. 68 f. 11-13.

†*Cadoceras tschubrukulachensis* sp. nov., **Vorontzev, N. B. & Laptinskaya, E. B.** p. 146.

†*Cadomitinae* subfam. nov. of Stephanoceratidae, Jurassic, **G. Westermann** p. 251.

†*Caicedia* subgen. nov. of *Pulchellia* subgenotype: *Ammonites caicedi* Karsten, **H. Bürgl** (2) p. 66.

†*Canavaria* Gemmellaro, 1886. Designation of type species, p. 167, as *Harpoceras* (*Dumortieria*) *haugi* Gemmellaro, 1885; *C. af. cultraroï* first record from Britain, Domesian of Yorkshire, p. 168, **M. Howarth**.

†*Ceratites* various species from the Trochitenkalk (Miocene) of the Saar, Germany, **E. Schneider**; *C. unusual* forms from the Muschelkalk, **R. Wenger**.

†*Chelonicerias* Hyatt, 1903 (genotype by designation, *Ammonites cornuelianus* d'Orbigny, 1841) validated, **Opinion 428**.

Cheloniceratidae Spath, (L.F.) 1923, to be placed on the "Official List of Family-Group Names in Zoology", Opinion 428.

†*Chondroceras* (*Chondroceras*) *wrighti* minor subsp. nov. p. 61 pl. 3 f. 2-3 Germany; *C. (C.) polytomum* p. 62 pl. 3 f. 4a-c Spain; *C. (C.?) densicostatum* p. 65 pl. 3 f. 5, 6 Swiss Jura. spp. nov.; *C. (Schmidtoceras)* subgen. nov. p. 66; subgenotype: *C. (S.) schmidti* p. 69 pl. 3 f. 7, 8; pl. 4 f. 2-5; pl. 5 f. 1-5 and subsp. p. 71; *C. (S.) schindewolfi* p. 80 pl. 7 f. 3-7; pl. 8 f. 1-3; *C. (S.) arkelli* p. 84 pl. 8 f. 4-9; pl. 9 f. 1-3; *C. (S.) crassum* p. 87 pl. 9 f. 4-5; *C. (S.) evolutum* p. 88 pl. 9 f. 6-9; *C. (S.) tenue* p. 91 pl. 10 f. 1-4; *C. (S.?) antiquum* p. 94 pl. 10 f. 7a-d; Germany; *C. (S.??) gracile* "[n. subgen.]" p. 96 pl. 10 f. 8; pl. 11 f. 1, 2 Swiss Jura; *C. (S.) ibericum* p. 93 pl. 10 f. 5-6 Spain; *C. (Defonticeras?) parvumbilicium* p. 104 pl. 12 f. 1, 2 England spp. nov. Bajocian, Jurassic; *C. (Schmidtoceras) schmidti multicostatum* p. 73 pl. 5 f. 1-5; *C. (S.) orbignyanum crassicostatum* p. 79 pl. 5 f. 8; pl. 6 f. 3-5; *C. (S.) arkelli gerzense* p. 86 pl. 8 f. 9; Pl. 9 f. 1-3; Germany; *C. (S.) orbignyanum polypleurum* p. 77 pl. 6 f. 6; pl. 7 f. 1, 2 Swiss Jura; *C. (S.) Schindewolfi hispanicum* p. 82 pl. 8 f. 1-3 Spain; subspp. nov. Bajocian, Jurassic, G. Westermann (1) *Chondroceras* (?) (*Praetutiles*) subgen. nov. Type: *C. kruizingai* sp. nov. holotype "Sphaeroceras gadohense" (Kruizinga, 1926, non Boehm), G. Westermann p. 257.

†*Cicatriles hokodzensis* sp. nov. Aptian, Cretaceous. North Caucasus, Russia, N. Luppov (1) p. 72 pl. 8 f. 4.

†*Cluthoceras* gen. nov. p. 560 Goniatiidae: Genotype *C. truemani* p. 561 pl. 4 f. 1, 2; text-f. 4a, b; *C. neilsoni* p. 563 pl. 4 f. 3, 4 text-f. 4d-f: spp. nov. Carboniferous. Bishopbriggs, Scotland, E. D. Currie.

†*Coeloceras* (*Præperonoceras*) subgen. nov. p. 136 subgenotype *C. (P.) brancoi* sp. nov. p. 136 a single specimen as *Stephanocerus* n. sp." Branco deser. & fig. see Branco 1879 Abh. Geol. Spec. Elsass.-Lothringen 2 1 66 pl. 1 f. 5, Jurassic, Lorraine, France, P. Maubeuge.

†*Conocerina claudi* sp. nov. Ordovician Texas, Unklesbay (1) J. Paleont. 28 5 1954 pp. 637, 642 pl. 68 f. 20. Ubirch and Foerster 1935; Denison Univ. Bull. (J. Sci. Labs.) 30 268.

†*Coroniceras* (*Paracorniceras*) *charlesi* sp. nov. Lias, probably from Stuttgart. Type figured by Reynès, pl. 16 f. 1, 2, D. Donovan p. 12.

†*Cotteswoldia spathi* sp. nov. (*Cotteswoldia* sp. Buckman; non *Harpoceras opalinum* Rein. 1942) Aalenian, Jurassic. Luxembourg, P. Maubeuge (2) p. 78 pl. 2 (see also Arch. Inst. Gr. Duc. Luxemb. N.S. 181 949 pl. xvii); *C. angulata* p. 367 pl. 1; *C. pseudogranjeani* p. 369 pl. 2; spp. nov. Jurassic. Luxembourg, P. Maubeuge (3).

†*Cravenoceras scoticum* p. 575 pl. 2 f. 22-24; text-f. 6a; *C. gairense* p. 577 pl. 4 f. 8-10 text-f. 6b, c spp. nov. Carboniferous, Scotland, E. D. Currie.

†*Creniceras crenatum* from the Jurassic of Clucy & Tarcenay, France A. Caire; A. Caire (1); *C. crenatum* Brug. its occurrence in the Oxfordian at Clucy (Doubs), A. Caire (3).

†*Crimites glomulus* sp. nov. Sakmara deposit, Aktyubinsk Province. Kazakh, Russia. Permian?, V. Ruzhentzev (4) p. 81 pl. 6 f. 8-10.

†*Crioceras baylei* p. 36 text-f. 4b; *C. krenkeli* p. 37 pl. 5 f. 5; text-f. 4c; *C. ramkrishnai* p. 38 pl. 1 f. 1; text-f. 4d; *C. krishnae* p. 39 pl. 1 f. 2; text-f. 5a; *C. loryi* p. 40 pl. 5 f. 2 text-f. 5b; *C. piveteaui* p. 41 pl. 4 f. 12 text-f. 5c; *C. rogeri* p. 42 pl. 4 f. 14 text-f. 6a; *C. schindewolfi* p. 43 pl. 1 f. 9 text-f. 6b; *C. stahleckeri* p. 43 pl. 1 f. 5; text-f. 6c; *C. viallii* p. 44 pl. 4 f. 19 text-f. 6d; *C. andersoni* p. 46 pl. 4 f. 23 text-f. 7a; *C. basseae* p. 46 pl. 5 f. 4; text-f. 7b; *C. karakaschi* p. 48 pl. 4 f. 13 text-f. 8a; *C. nowaki* p. 49 pl. 4 f. 11 text-f. 8b; *C. shibaniae* p. 49 pl. 4 f. 9 text-f. 8e; *C. sornayi* p. 50 pl. 1 f. 7; text-f. 8c; *C. sahnii* p. 56 pl. 8 f. 16; *C. kaliae* p. 60 pl. 5 f. 24; *C. mahadevai* p. 62 pl. 5 f. 7; *C. pseudoangulicostatum* p. 63 pl. 2 f. 7; *C. barrabei* p. 64 pl. 5 f. 19; *C. inermis* p. 64 pl. 3 f. 6 pl. 5 f. 8; *C. vishnui* p. 68 pl. 3 f. 5; *C. arkelli* p. 69 pl. 3 f. 9; *C. shibaze* p. 69 pl. 5 f. 12; *C. seitzi* p. 70 pl. 3 f. 3; *C. anglesensis* p. 71 pl. 5 f. 3; *C. durgae* p. 71 pl. 5 f. 15; *C. gignouxii* p. 74 pl. 3 f. 103 *C. matsumotoi* p. 74 pl. 3 f. 2; "C."; *astieri* p. 161 pl. 7 f. 29 spp. nov.; *C. duvali sarasini* p. 36; *C. sornayi densicostata* p. 51 pl. 4 f. 8; *C. sornayi tuberculata* p. 51 pl. 4 f. 15 text-f. 8d; *C. krishnae tuberculata* p. 55 pl. 5 f. 9;

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Cyclobactrites gen. nov. genotype: *Bac-*
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 many, Shimanski, V. N. (1) Bull.
 Soc. Nat. Moscou Geol. 1 1955 p. 97.

†*Cymatoceras yabei* sp. nov. Nagase
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Cyrthoceratites depressa Goldfuss, fig.,
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†*Daizites attenuatus* sp. nov. Sakmara
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 of the Kazakh, Russia. Permian?,
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†*Damesites laticarinatus* sp. nov.
 Cenomanian, Cretaceous. Ishikari Pro-
 vince, Hokkaido, Japan, Saito &
 Matsumoto p. 192 text-f. 1–4.

†*Delépinoceras* gen. nov. (Demorpho-
 ceratidae) genotype *Dimorphoceras tha-*
bassoide Delépine, Müller & Furnish
 J. Paleont. 28 5 1954 p. 690.

†*Deltocymatoceras* gen. nov. Nautili-
 dae: genotype: *Nautilus leiotropis*
 Schlüter, 1876. Cretaceous, Germany,
 B. Kummel (1) p. 438 pl. 22 f. 1, 2.

†*Demareziites* gen. nov. Cyclobolidae
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 1950 Tae Vei deposits, Timor, V. E.
 Ruzhentzev (1) p. 703.

†*Desmoceras difficile* in the Argonian
 and *Ancyloceras*, P. Gidon.

†*Diceras speciosum* (Münster) of
 Württemberg notes. O. F. Geyer.

†*Dissimilites piveteaui* sp. nov. Lower
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†*Dorsetensia haydeni* sp. nov. Bajo-
 cian Tibet, W. J. Arkell (2) Geol. Mag.
 90 5 1953 p. 334 pl. xiv f. 9a, b; *D.*
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D. excavata p. 169 pl. 11, Ottange.
D. thilense p. 172 pl. 12, Thil. spp.
 nov. Jurassic, France, P. Mauberge (1).

†*Doricranites* from the Triassic of
 Turkmenia, Russia, T. Astakhova.

†*Douvilleiceras* de Grossouvre, 1893,
 to be placed on the Official List of
 Generic Names in Zoology, Opinion 422;
D. coronatum Rouchadze, 1932, (specific
 name of type species of *Megatyloceras*
 Humphrey), the specific name vali-
 dated, Opinion 428; *Douvilleiceras* de
 Grossouvre notice of proposal of
Ammonites mammillatus Schlotheim as
 neotype, F. Hemming; *Douvilleiceras*
 sp. An early Cretaceous Ammonite
 occurring in graywache-type. Sand-
 stone along southern shore of the inlet
 to San Francisco Bay, Schlocher,
 Bonilla & Inlay.

Douvilleiceratidae Parona & Bonar-
 elli, 1897 (type genus: *Douvilleiceras*
 de Grossouvre, 1893), to be placed on the
 Official List of Family-Group Names in
 Zoology, Opinion 422.

†*Dufreynoya texana media* p. 13
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 p. 13 pl. 1 f. 2; pl. 3 f. 5 vars. nov.
 Aptian Cretaceous. Santander, Colom-
 bia, H. Bürgel (1).

†*Emericiceras bouldouxiae* p. 79 pl.
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 taceous south east France, S. Sarkar.

Encoiloceralidae fam. nov. Nauti-
 loidea, Shimanski, V. N. & Erlanger,
 A. A., Bull. Soc. Nat. Moscou Geol-
 30 3 1955 p. 96.

†*Engonoceras wilkinsoni* sp. nov.
 Albian, Cretaceous. Oregon, U.S.A.,
 E. Packard p. 399 text-f. 1.

†*Eosianites trapezoidalis* sp. nov. p. 11 pl. 1 f. 7-12 text-fig. 6-9; *E. subhanieli alta* 'morpho nov.' p. 15 pl. 2 f. 4-6. River Yurezan, S. Urals, Russia. *Schwagerina* horizon, Permian, S. Maksimora.

†*Eotetragonites breistrofferi* sp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, I. G. Mahmoud p. 86 pl. 5 f. 10.

†*Epicymatoceras* gen. nov. Nautilidae genotype: *Nautilus vaelsensis* Binckhorst 1861. Cretaceous, Germany and Belgium B. Kummel (1) p. 439 pl. 23 f. 1, 2.

†*Eremoceras sansabaense* sp. nov. Ordovician, Texas, Unklesbay (1) J. Paleont. 28 5 1954 pp. 637, 649 pl. 71 f. 9, 10.

†*Eulytoceras rotundum* sp. nov. Lower Cretaceous. Crimea and North Caucasus, V. Drushchitz p. 86 pl. 5 f. 15.

†*Eutrophoceras montanensis* sp. nov. Jurassic Montana, B. Kummel, J. Paleont. 28 3 1954 p. 320 pl. 34 f. 1, 2; *E. egitoense* sp. nov. Senonian (Cretaceous), Benguela, Angola, Miller & Carpenter p. 34 pl. 1 text-f. 2.

†*Ezilloella* gen. nov. p. 263 Vasconeritidae. Genotype: *E. ezilloensis* sp. nov. p. 264 pl. 3 f. 4 text-f. 10. Upper Cretaceous. Aboine river, Nigeria, R. A. Reymont.

†(*Fuciniceras*)? *bajocense* sp. nov. Jurassic. France? P. Maubeuge (1) p. 164 pl. 4.

†*Garantiana tetragona pseudotetragona* p. 174 pl. 14, Domèvre en Haye; *G. tetragona renardi* p. 175 pl. 15, Maxéville vars. nov. Jurassic, France, P. Maubeuge (1).

†*Gastrioceras* Hyatt, 1844, genotype *Ammonites listeri* Sowerby (J.) 1812 validated, Opinion 420.

†*Germanites (Germanoides)* subgen. nov. Jurassic, G. Westermann, p. 251.

†*Germanoides* subgen. nov. of *Germanites*; subgenotype: *G. nodosus* Westermann, 1954. Jurassic, G. Westermann p. 251.

†*Glyphyrites rarus* sp. nov. River Yurezan, S. Urals, Russia. *Schwagerina* horizon, Permian, S. Maksimora p. 10 pl. 2 f. 1-3 text-f. 5.

†*Gombeoceras subtenue* p. 261 pl. 4 f. 4, text-f. 3f. Bauchi Province; *G. bulbosum* p. 263 pl. 4 f. 2, text-f. 3g, 9, Bornu Province, spp. nov. Upper Cretaceous, Nigeria, R. A. Reymont.

†Goniaticera from the Devonian, H. K. Erben.

†*Goniatices* de Haan, 1825 genotype species: *Ammonites sphaericus* Sowerby (J.) 1814 to be placed on the Official List of Generic Names in Zoology, Opinion 420; *Goniatices* and successions of zones in N. Africa, G. Delépine.

Gymnites cf. *bosnensis* from the Pelagoniden (? Triassic) of Macedonia, W. Medwenitsch.

†*Gyroceratites dorsolamellatus* sp. nov. Devonian Europe, H. K. Erben Neues Jb. Geol. Paleont. 98 2 1953 p. 185 pl. 17 f. 7-9 text-fig. 3.

†*Hammatoceeras ferrugineuse* sp. nov. Jurassic, Luxembourg, P. Maubeuge (1) p. 154 pl. 4.

†*Hecticoceras (Brightia) nodosum recurvum* subsp. nov. p. 22 pl. 4 f. 2; *H. (B.) tenuinodosum* sp. nov. p. 23 pl. 2 f. 12; *H. (Zieteniceras)* subgen. nov. p. 24, subgenotype: *H. zietenii* de Tsyto-vitch 1911; *H. (Lunuloceras) michailowense* sp. nov. p. 43 pl. 1 f. 10; *H. (Rossien-siceras) tsytovitchae* sp. nov. p. 50 pl. 2 f. 1; *H. (R.) cf. rossienense teisseyreii* "n. nom.", subsp. nov. p. 52 pl. 4 f. 25; *H. (R.) metomphalum savoienense* "n. nom.", subsp. nov. (see pl. 4 f. 30) p. 57, pl. 2 f. 10; *H. (Putealicerias) arkelli* p. 66 pl. 3 f. 6; *H. (P.) schalchi* p. 67 pl. 3 f. 4 spp. nov.; *H. (P.) krakoviense transiens* p. 70 pl. 3 f. 5; *H. (P.) punctatum arcuatum* p. 72 pl. 3 f. 10; *H. (P.) punctatum exile* p. 73 pl. 3 f. 11 subspp. nov. Callovian, Jurassic. Blumberg, South Baden, Germany, A. Zeiss.

†*Heinzia (Heinzia) colleti* sp. nov. Barremian, Cretaceous. Santander, Colombia, H. Bürgl (2) p. 80 pl. 23 f. 1-5.

†*Hettneria* subgen. nov. of *Pulchellia* subgenotype: *P. selecta* Gerhardt, H. Bürgl (2) p. 70.

†Holcophylloceratinae subfam. nov. of Phylloceratidae, V. Drushchitz p. 131.

†*Homolomites*, Craspeditidae. The range of the genus and species included described under other generic names, R. W. Imlay (1).

†*Hoplites* Neumayr with *Ammonites dentatus* Sow 1821 as lectotype proposal for plenary powers to establish the name, M. Breistroffer.

"*Hoplitoides*" *adkimsi* sp. nov. Tissotiidae Lower Turonian, Mexico, Kummel & Decker J. Paleont. 28 3 1954 pp. 310, 316 pl. 32 f. 6 pl. 33 f. 3 text-figs. 7, 8.

†*Hypophylloceras* (*Hyporbulites*) *aegyptiacum* sp. nov. Cretaceous, Moghara Massif, Sinai, Egypt, I. G. Mahmoud p. 84 pl. 5 f. 8, 9.

†*Imitoceras bertchogurense* sp. nov. Carboniferous. Ber-Choghura, Kirghiz Steppe, N. of Aral Sea, Russia, E. Balashova p. 193 pl. 11 f. 17–25; pl. 12 f. 10.

†*Infragarantiana* gen. nov. Perisphinctidae; genotype: *I. primitiva* (Wetzel, 1936) Jurassic, G. Westermann p. 268.

†*Infraparkinsonia* gen. nov. Perisphinctidae genotype: *I. inferior* (Bentz 1928) Jurassic, G. Westermann p. 268.

†*Jacobella* and *Hoplites* auct. availability of name, M. Breistroffer; *Jacobella* a propos the name *Cenomanaster* for *Jacobella* Mercier 1935, C. W. Wright (1).

†*Jaubertites* gen. nov. Ancyloceratidae. Genotype: *J. dubius* nov. (ex. Jaubert in coll.) p. 99 pl. 8 f. 3; *J. collignoni* sp. nov. p. 99 pl. 7 f. 25; *J. dubius tuberculata* var. nov. p. 99 pl. 7 f. 11, Lower Cretaceous, south east France, S. Sarkar.

†*Jouaniceras numidicum* sp. nov. Coniacian Algeria, David & Sornay C.R. Acad. Sci. Paris 242 4 1956 p. 532.

†*Juresanites kazakhorum* sp. nov. Sakmara deposit. Aktyubinsk Province, Kazakh, Russia. Permian?, V. Ruzhentzev (4) p. 68 pl. 3 f. 1–4; pl. 4 f. 1.

†*Kamerunoceras* gen. nov. p. 250 Collignoniceratidae: Type species. *Acanthoceras eschii* Solger. Upper Cretaceous Mungo River, Cameroons, Nigeria, R. A. Reymont.

†*Kellawayites basseae* sp. nov. Callovian, Kutch, India, Agrawal (1) Ann. Cent. ét. Doc. Paléont. No. 19 1956 p. 33 pl. 3 f. 6 text-fig. 9.

†*Kinkeliniceras sornayi* sp. nov. Callovian Kutch, India, Agrawal (1) Ann. Cent. ét. Doc. Paléont. No. 19 1956 p. 41 pl. 6 f. 2.

†*Knemiceras spathi* p. 45 pl. 1 f. 1–11; pl. 2 f. 1 text-f. 18–27; *K. collignoni* p. 60 pl. 3 f. 2, 3 text-f. 31–34; *K.*

rittmanni p. 63 pl. 3 f. 4–13 pl. 4 f. 1 text-f. 35–38; *K. deserti* p. 68 pl. 4 f. 3–5 text-f. 39–41; spp. nov. *K. spathi orientalis* p. 55 pl. 2 f. 2–7 text-f. 28, 29 var. nov. Cretaceous. Moghara Massif, Sinai, Egypt; *K. aegyptiacum* nom. nov. p. 57 for *Kn. "Uhlgi"* ap. H. Douvillé, 1916, I. G. E.-D. Mahmoud.

†*Kosmoceras* (*Galielmites*) *media* pp. 222, 226 pl. 2 f. 1–4, pl. 3 f. 3, 4; *K. (G.) nodosum* pp. 222, 229 spp. nov., J. H. Callomon (1) Philos. Trans. 239B 664 1955.

Kosmaticeratidae in Patagonia, Argentina, G. Cecioni (1).

†*Laevaptychus* species from the Jurassic of southern Roumania, Răileanu, Bădălută & Pelin.

†*Laevilamellaptychus crassissimus* from the Italian Jurassic, G. Cuzzi.

†*Lamedaptychus*, Jurassic species from southern Roumania, Răileanu, Bădălută & Pelin.

†*Lamellaptychus* species from the Jurassic of Italy, G. Cuzzi.

†*Leopoldia? paynensis* from the Cretaceous of Patagonia, G. Cecioni.

†*Lepthoplites cantabrigiensis rarecostata* [error for *rarecostata*] p. 47 pl. 5 f. 3, 4; *L. pseudoplanus subdiscoides* p. 50 pl. 5 f. 9 vars. nov. Kopet-Dagh, Trans-Caspia, Russia. Cretaceous, Albanian, A. Ghlazunova.

†*Leptoceras* (?*Lytocioceras*) *sabardianum non-turberculata* var. nov. Lower Cretaceous, south east France, S. Sarkar p. 140 pl. 9 f. 13; pl. 10 f. 14.

†*Leptosphinctes* (*Praeleptosphinctes*) subgen. nov. subgenotype: *L. jaworskii* sp. nov. = "*Morphoceras* nov. sp. indet. cf. *defrancei* d'Orb." in Jaworskii, 1926, G. Westermann p. 268.

†*Levisoceras magnum* sp. nov. Ordovician Central Texas, Unklesbay (1) J. Paleont. 28 5 1954 pp. 637, 651 pl. 70 f. 14, 15.

†*Ludwigia eschense* sp. nov. p. 389 pl. 16 Jurassic. Luxembourg, P. Maubeuge (3).

Lycetticeras Gen. nov. genotype *L. lycetti* sp. nov. Middle Bathonian, Great Oolite, Minchampton, W. J. Arkell (1) Geol. Mag. 90 1 1955 p. 37 pl. 1 f. 2.

Lytoceras Suess 1865, neuter gender, Direction 42.

†*Macrocephalitacea* superfam. nov. Ammonoidea, Macrocephalitidae, Buck., Cardioceratidae, H. Douvillée and Pachyceratidae, Buck., N. T. Sazonov p. 117.

†*Medlicottia vetusta* p. 151 pl. 12 f. 1-7; *M. intermedia* p. 153 pl. 13 f. 4-7 spp. nov. Rivers, Aktasta and Sakmara, Russia. Kurmainskii horizon, Permian V. Ruzhentzev (3).

†*Megapronorites* gen. nov. p. 60 Pronoritidae; *M. sakmarensis* sp. nov. p. 61 pl. 1 f. 1-9. Namurian, Carboniferous. S. Urals, Russia, V. Ruzhentzev (3).

Megatyloceras Humphrey, 1949, to be placed on the "Official List of Generic Names in Zoology," Opinion 428.

†*Metapronorites cuneilobatus* sp. nov. p. 69 pl. 11 f. 5-8. Upper Carboniferous. Sakmara, Russia, V. Ruzhentzev (3).

†*Mexioceras* gen. nov. Cyclolobidae Type: *Waagenoceras cumminsi* var. *guadalupense* Girty, 1908. Delaware Mountain, Texas, V. E. Ruzhentzev (1) p. 701 f. 1a.

†*Mikasaites* gen. nov. p. 174 Kossmaticeritidae, sub-fam. Marshallitinae. genotype: *M. orbicularis* sp. nov. p. 175 pl. 16 f. 1a-d, 2a-c. Cretaceous, Hokkaido, Japan, T. Matsumoto (1).

†*Mimosphinctinae* subfam. nov. Type *Mimosphinctes* Lichenberg 1931 genotype *M. tripartitons* Eich., H. K. Erben Neu. Jb. Geol. Palaont. 93 2 1953 p. 191 pl. 18 f. 3-7.

†*Morrisiceratinae* subfam. nov. of Macrocephalitidae, to include genera *Morrisiceras* and *Lycetticeras*. Jurassic G. Westermann p. 262.

Muensteroceras emendation of the generic name *Munsteroceras* Hyatt, 1884, Opinion 391.

†*Neoaganides tabantensis* sp. nov. Sokmara deposit in the Aktyubinsk Province of the Kazakh, Russia. Permian?, V. Ruzhentzev (4) p. 58 pl. 1 f. 7.

†*Neodimorphoceras* (?) *armstrongi* sp. nov. Carboniferous. Scotland, E. D. Currie p. 593 pl. 3 f. 13 text-f. 2 m.

†*Neomorphoceras* gen. nov. genotype *Ammonites chapnisi* Oppel pl. 4 Upper Oxfordian, W. J. Arkell (1) Geol. Mag. 90 1 1953 p. 38 pl. 1 f. 4.

†*Neopharciceras kurbatovi* gen. nov. sp. nov. Pharciceratidae fam. nov. Rudnii Altai Devonian, Bogoslovski, B. I. p. 95.

†*Neopronorites prior* p. 78 pl. 3 f. 8-10; *N. carboniferus* p. 80 pl. 4 f. 1-8; spp. nov. Upper Carboniferous. Sakmara, Russia, V. Ruzhentzev (3).

†*Neposiella* gen. nov. Ammonitacea *N. nepos* H. Douvillée; *N. spathi* sp. nov. p. 101 pl. 5 f. 23, 24 text-f. 47, 48. Cretaceous, Moghara Massif, Sinai, Egypt, I. G. Mahmoud.

†*Nicklesiella nodosa* p. 50 pl. 9 f. 4, 5; Pl. 10 f. 1; pl. 3 f. 7 sp. nov. Chipatá, Santander; *N. dumasiana retrocurvata* p. 50 pl. 9 f. 2, 3 Boyacá; *N. didayana multifida* p. 54 pl. 11 f. 4, 5 Bolivar subsp. nov. Barremian, Cretaceous. Colombia, H. Bürgl (2).

†*Nicklesiella* subgen. nov. p. 55 of *Pulchellia* subgenotype. *P. (N.) leivaensis* sp. nov. p. 56 pl. 11 f. 10, 11. Cretaceous Colombia, H. Bürgl (2).

†*Nordiceras* gen. nov. p. 1104 Pharciceratidae; genotype: *Prolecanites timanicus* Holzapfel 1899. Lower Franconian. Timan, Kolima, Russia, B. I. Bogoslovski (1).

†*Obtusiscostites rajnathi* p. 37 pl. 4 f. 2a, b. *O. (?) spathi* p. 38 pl. 5 f. 1a, b spp. nov. Callovian Kutch, India, Agrawal (1) Ann. Cent. et Doc. Paléont. No. 19 1956.

†*Oecoptychiinae* subfam. nov. of Morphotoceratidae. Jurassic, G. Westermann p. 273.

†*Onitshoceras* gen. nov. p. 248 Desmotoceratidae; genotype species: *O. matsumotoi* sp. nov. p. 249 pl. 3 f. 1, 2; pl. 5 f. 7. Upper Cretaceous. Onitsha Province, Nigeria, R. A. Reymont.

†*Oosterellidae*, from the North African Cretaceous, Basse & Delga.

†*Orthoceras* Brünnich 1771 emend. nov. genotype: *Orthoceratites regularis* Schlothheim, 1820, Z. Balashov p. 233.

†*Pachyvascoceras* Furon 1935, previously a sub-genus of *Vascoceras* Choffat, now given generic rank, p. 257. Type species (here designated): *Vascoceras* (*Pachyvascoceras*) *crassum*

Furon 1935; *P. costatum* p. 257 pl. 3 f. 6 pl. 4 f. 3 pl. 5 f. 2; *P. proprium* p. 258 pl. 5 f. 1; *P. globosum* p. 259 pl. 3 f. 3 pl. 5 f. 4; *spp. nov.*; *P. proprium plenum subsp. nov.* p. 258 pl. 5 f. 5. Upper Cretaceous. Nigeria, R. A. Reymont.

†*Paracenceras sornayi* sp. nov. Callov-Oxfordian, Kutch, India, Agrawal (1) Ann. Cent. Ét. Doc. Paléont. No. 19 1956 p. 14 pl. 1 f. 4.

†*Podagrosiceratidae* fam. nov. p. 621 *Podagrosiceras* gen. nov. p. 621, genotype: *P. athleticum* sp. nov. p. 622 pl. 1 f. 1. Aalenian, Jurassic. Neuquén region, Argentina, Maubeuge & Lambert.

†*Paragastrioceras strigosum* sp. nov. Sakmara deposit. Aktyubinsk Province. Kazakh, Russia. Permian?, V. Ruzhentzev (4) p. 72 pl. 5 f. 1-3.

†*Parkinsonitacea* superfam. nov. Ammonoidea. Marphoceratidae Buck., Cosmocerotidae, Hyatt, Proplanulitidae Buck., and Aulacostephanidae fam. nov., Sazonov, N. T. p. 117.

†*Phaedyrsmocheilus* gen. nov. genotype: *Nautilus subaratus* Keyserling, 1860. Pleuromitridae, Shimanski, V. N. & Erlanger, A. A. Bull. Soc. Nat. Moscou Geol. 30 3 1955 p. 96.

†*Pharciceratidae* fam. nov. Ammonoidea. *Pharciceras*, Hyatt, *Synpharciceras* Schindewolf, and *Neopharciceras* gen. nov. Rudnoi Altaya, Russia. Devonian p. 95, B. I. Bogoslovski.

†*Phyllopachyceras katschiense* p. 121 pl. 11 f. 42; *P. segne* p. 127 pl. 12 f. 43; *P. ectocostatum* p. 128 pl. 13 f. 52-54 *P. crassum* p. 130 pl. 13 f. 51 *spp. nov.* Lower Cretaceous. Crimea and Northern Caucasus, V. Drushchitz.

†*Pictonia* Bayle, 1878: *P. laylei* Salfeld, 1913 designated as type. The generic and specific names validated, Opinion 426.

†*Placenticeras benningi* sp. nov. Cretaceous. Alabama, U.S.A., L. Stephenson (1) p. 247 pl. 44 f. 21, 22; pl. 45 f. 7-11.

†*Platyclymenia (Platyclymenia) grossi* p. 71 pl. 2 f. 21; *P. (P.) quiringi* p. 74 pl. 2 f. 25 *spp. nov.*; *P. (P.) subnautilina schleizi* p. 74 pl. 2 f. 24 subsp. nov. Devonian, Thuringia, Germany, K. J. Müller.

†*Pleydellia buckmani* sp. nov. (non *Harpoceras opalinum* Rein, 1942) Aalenian, Jurassic. Luxembourg. P. Maubeuge (2) p. 76 pl. 2 (see also, Arch. Inst. Gr. Duc. Luxemb. N.S. 18 1949 pl. xvii); *P. pseudoaalense* p. 378 pl. 9; *P. falcifer* p. 379 pl. 9; *P. funcki* p. 379 pl. 10; *P. arcelli* p. 380 pl. 10; *P. (Walkericeras) pseudoarculata* p. 382 pl. 12; *P. (W.) pseudolotharingica* p. 383 pl. 13; *P. (W.) dudelangense* p. 385 pl. 14; *spp. nov.* Jurassic. Luxembourg, P. Maubeuge (3) *P. argentina* sp. nov. Aalenian, Jurassic. Neuquén region, Argentina, Maubeuge & Lambert p. 622, pl. 1 f. 2-6.

†*Poecilomorphus lauxi* sp. nov. Jurassic. Luxembourg, P. Maubeuge (1) p. 163 pl. 3.

†*Praeleptosphinctes* subgen. nov. of *Leptosphinctes* subgenotype: *L. jaworskii* sp. nov. = "*Morphoceras* nov. sp. indet. cf. *defrancei* d'Orb." in Jaworskii, 1926, G. Westermann p. 268.

†*Praetulites* subgen. nov. of *Chondrocera* (?) subgenotype *C. kruizingai* sp. nov. = "*Sphaeroceras gadohense*" (Kruizinga, 1926, non Bochm), G. Westermann p. 257.

†*Præperonoceras* "nov. gen." [subgen. nov.] of *Coeloceras* [q.v.], P. Maubeuge p. 136.

†*Procerozigzag* gen. nov. type *Stephanoceras crassizigzag* Buckman 1892 var., W. J. Arkell (1) Geol. Mag. 90 1 1953, p. 37.

†*Progeronia* gen. nov. type *Perisphinctes progeron* v. Ammon 1875 p. 181 pl. i, f. 2 Lower Oxfordian, S. France, W. J. Arkell (1) Geol. Mag. 90 1 1953 p. 38.

†*Prolecanitina* suborder nov. of Thurmnoidea, Miller and Furnish J. Paleont. 28 5 1954 p. 687.

†*Protacrioceras* subgen. nov. of *Acrioceras* Ancyloceratidae. Lower Cretaceous, south east France, S. Sarkar p. 129.

†*Protetragonites mediocris* p. 97 pl. 6 f. 21; *P. karakaschi* p. 99 pl. 6 f. 22, 23 *spp. nov.* Lower Cretaceous. Crimea and North Caucasus, V. Drushchitz.

†*Prothalassoceras serratum* sp. nov. p. 23 pl. 3 f. 1, 2; *P. biforme latilobata* var. nov. p. 25 pl. 3 f. 3, 4. Yurezan river, S. Urals, Russia. *Schwagerina*

horizon, Permian, **S. Maksimora**. *P. umbilicatum* sp. nov. Sakmora deposit, Aktyubinsk Province, Russia. Permian?, **V. Ruzhentzev** (4) p. 59 pl. 1 f. 8, 9; pl. 6 f. 1.

†*Protogrammoceras* a. *bassanii* Doernerian Jurassic, Yorkshire, First record from Britain, **M. Howarth** p. 169.

†Pseudaganidinae subfam. nov. Nautilidae. To include genera *Pseudaganides* Spath and *Pseudonautilus* Meek, **B. Kummel** (1) p. 389.

†*Pseudaspidoceras paganum* sp. nov. Upper Cretaceous, Bauchi Province, Nigeria, **R. A. Rayment** p. 253 pl. 4 f. 1 text-f. 3h, 4.

†*Pseudolillia murvillensis* 'gen. et sp.' nov. Jurassic. Murville, France, **P. Maubeuge** (1) p. 150 pl. 1 pl. 2 f. 1.

Pseudonautilidae fam. nov. Nautiloidea, **Shimanski, V. N. & Erlanger, A. A.** Bull. Soc. Nat. Moscou geol. 30 3 1955 p. 96.

†*Pseudotetragonites* gen. nov. Lytoceeratidae: genotype: *P. kudrjavzevi* sp. nov. Lower Cretaceous. Crimea and North Caucasus, **V. Drushchitz** p. 80 pl. 7 f. 25.

†*Pseudothurmannia angulicostata tuberculata* p. 155 pl. 6 f. 13; *P. mortilleti rotunda* p. 156 pl. 6 f. 12 vars. nov.; *P. simionescui* sp. nov. p. 157 pl. 11 f. 1 Lower Cretaceous, South East France; *P. picteti* nom. nov. for specimen figured by Pictet under the name *Amm. angulicostatus* D'Orb.; p. 156, **S. Sarkar**.

†*Pseudowalkericeras hussignyiensis* gen. et sp. nov. Jurassic. Hussigny, France, **P. Maubeuge** (1) p. 151 pl. 2 f. 2.

†*Psiloceras* from the Mesozoic of central Switzerland, **R. Trümpy**.

†*Psilotissotia chalmasi andina* subsp. nov. p. 85 pl. 26 f. 5 Santander; *P. maxima* sp. nov. p. 86 pl. 26 f. 1, 2 Boyacá. Cretaceous, Colombia, **H. Bürgl** (2).

†*Ptychophylloceras varshneyi* sp. nov. Callovian Kutch, India, **Agrawal, L.** (1) Ann. Cent. Ét. Doc. Paléont. No. 19 p. 16 pl. 1 f. 3a, b.

†*Pulchellia* (*Nicklesiella*) subgen. nov. p. 55 subgenotype: *P. (N.) leivaensis* p. 56 pl. 11 f. 10, 11; pl. 2 f. 5 Boyacá; *P. (N.) pseudokarsteni* p. 57 pl.

12 f. 1-4; pl. 3 f. 12, 13. Santander spp. nov.; *P. (Semipulchellia)* subgen. nov. p. 57 subgenotype: *P. (S.) communis* p. 59 pl. 12 f. 6-12; *P. (S.) elegans* p. 58 pl. 12 f. 5; *P. (S.) robusta* p. 60 pl. 13 f. 1, 2 spp. nov. Santander; *P. (Pulchellia) riedeli* p. 64 pl. 13 f. 9, 10 Cundinamarca; *P. (P.) radians* p. 65 pl. 13 f. 14; pl. 14 f. 1, 2. Santander spp. nov.; *P. (P.) galeata ornata* p. 63 pl. 13 f. 7, 8 subsp. nov.; *P. (Caicedia)* subgen. nov. p. 66 subgenotype: *Ammonites caicedi* Karsten; *P. (C.) royo* p. 68 pl. 15 f. 1, 2; pl. 4 f. 1 sp. nov.; *P. (Hettneria)* subgen. nov. p. 70 subgenotype: *P. selecta* Gerhardt; *P. (H.) orbigny* p. 73 pl. 16 f. 4. Santander sp. nov. Barremian, Cretaceous. Colombia, **H. Bürgl** (2); *P. (Heinzia) ouachensis* from the lower Cretaceous of N.-W. Caucasus. First record for the area, **N. Luppov**; *P.* and other Barremian genera from Trinidad, **R. W. Imlay**.

†*Punctaptychus punctatus* from the Italian Jurassic, **G. Cuzzi**; *P.* species from the Jurassic of southern Roumania **Răileanu, Bădălută & Pelin**.

†*Rasenia* Salfeld, 1913: *R. involuta* (Salfeld MS.) Spath, 1935 designated as type. Generic and specific names validated, **Opinion 426**.

†*Reinecheia ravana jhuraensis* var. nov. Collovian Kutch, India, **Agrawal** (1) Ann. Cent. Ét. Doc. Paléont. No. 19 1956 p. 31 pl. 1 f. 2a, b; *R. (Reineckeites) alemannica* sp. nov. p. 85 pl. 3 f. 12; *R. (R.) britannica* n. nom. for *Kellawaysites multicostatus* Peticlerc sp. Buckman; p. 86; *R. (R.) corroyi* p. 88 nom. nov. for *R. stuebeli* Steinmann, Corroy; *R. (R.) aff. jeanneti* nom. nov., p. 89, for *R. hungaricus* Till, Jeannet, **A. Zeiss**.

†*Renziceras* gen. nov. type *Hildoceras nausikaee* Renz. Toarcian, Epiraeas Greece, **A. J. Arkell** (1) Geol. Mag. 90 1 1953 p. 36 pl. f. 3.

†*Sagittoceras costulatum* from Sauerland, Germany, **A. Kraemer**.

†*Salfeldiella* (*Aphroditiceras*) subgen. nov. p. 80; *S. (A.) aphrodite venus* var. nov. p. 80 pl. 5 f. 1 text-f. 43; *S. (Goretophylloceras) moreti* sp. nov. p. 81 pl. 5 f. 2-4 text-f. 44, 45. Cretaceous. Moghara Massif, Sinai, Egypt, **Mahmoud, I. G. E.-D.**

Sandbergeroceras emendation of the generic name *Sandbergeoceras* Hyatt, 1884, **Opinion 392**.

†*Sphaeropharciceras* gen. nov. Pharciceratidae. Type *S. sandbergerorum* sp. nov. (= *Goniatites tridens* Sandberger (pars)) Lower Franconian, Triassic? West Germany, B. I. Bogoslovski (1) p. 1104.

†*Schmidtoceras* subgen. nov. of *Chondroceras* Jurassic. Europe, G. Westermann (1) p. 66.

†*Semipulchellia* subgen. nov. p. 57, of *Pulchellia* Type: *P. (S.) communis* sp. nov. p. 59 pl. 12 f. 6-12. Barremian, Cretaceous. Santander, Colombia, H. Bürgi (2).

†*Solgerites tuberculatus* sp. nov. Upper Cretaceous. Numan Division, Nigeria. R. A. Reyment p. 267 pl. 2 text-f. 11 a, b.

†*Sphaeroceras brongniarti terpartitum* subsp. nov. Jurassic, Calvados, France, G. Westermann (1) p. 33 pl. 14 f. 3-5.

†*Spathicrioceras* gen. nov. Heteroceratidae Genotype: *S. sornayi* sp. nov. p. 160 pl. 8 f. 8. Lower Cretaceous, South East France, S. Sarkar.

†*Spathites* gen. nov. Vas-coceratidae for *chispaensis* sp. nov. Lower Turonian, Mexico, Kummel & Dicken J. Paleont. 28 3 1954 pp. 310, 311 pl. 30 f. 1, 2 pl. 31 f. 1-15 text-fig. 1.

†*Spectoniceras versicolor* from the Russian Cretaceous. Note on structure, R. Reyment (1).

†*Spirogmoceras* gen. nov. of Trachyceratidae genotype *Protrachceras shastense* Smith, N. J. Silberling, J. Pal. 30 5 1956 p. 1152.

†*Stephanoceras* cf. *plicatissimum* middle Jurassic, Miyagi Prefecture, Japan, T. Sato (1) p. 169 f. 2-5 pl. 13.

Strenoceras and Ammonites of the Dogger—sutures, figs., O. H. Schindewolf.

†*Subtissotia peroni* Hyatt 1903 = *Tissotia africana* Peron, 1897, H. Cruys.

†*Synuraloceras* gen. nov. Paragastrioceratidae p. 73 genotype: *S. carinatum* sp. nov. p. 75 pl. 5 f. 4-6 Sakmara deposit, Aktyubinsk Province, Kazakh, Russia. Permian?, V. Ruzhentzev (4).

†*Tabantalites* gen. nov. p. 76 Marathontitidae: genotype: *T. bifurcatus* sp. nov. p. 77 pl. 6 f. 3-7 Sakmara deposit. Aktyubinsk Province. Kazakh, Russia Permian?, V. Ruzhentzev (4).

†*Tetragonites crudus* sp. nov. Lower Cretaceous. Crimea & Northern Caucasus, V. Drushchitz p. 105 pl. 8 f. 29.

†*Thalassoceras ulkense* sp. nov. Sakmara deposit, Aktyubinsk Province, Kazakh, Russia. Permian?, V. Ruzhentzev (4) p. 61 pl. 6 f. 2.

†*Timorites sigillarius* sp. nov. Khingan, ridge Great Churki, Russia upper Permian, Ruzhentzev, V. E. (1) C.R. Acad. Sci. Moscou 103 4 1955 p. 701.

†*Tithopeltoceras* gen. nov. type *Aspidoceras moricani* Meneghini 1885 pl. xxii f. 2, W. J. Arkell (1) Geol. Mag. 90 1 1953 p. 39 pl. 1 f. 1.

†*Tornoceras* (*Aulatornoceras*) *keyserlingi* nom. nov. p. 49, for *Goniatites cinctus* Keyserling 1844, non Braun 1842; *T. acutiforme* Gürich = *Dimero-ceras lentiforme* Sandberger (Jugendform) p. 55, 80, K. J. Müller.

†“*Toxoceras*” *requienianum unituberculata* var. nov. Cretaceous, south east France, S. Sarkar p. 56 pl. 5 f. 1a, b.

†*Uddenites postsakmarensis* p. 108 text-f. 53. Ural River; *U. orenburgensis* p. 109 text-f. 54. Orenburg; *U. tuberculatus* p. 111 pl. 5 f. 15, 16. Ural River; *U. convexus* p. 112 text-f. 56. Sakmara spp. nov. Carboniferous. Russia, V. Ruzhentzev (3).

†*Uddenoceras* gen. nov. for *Uddenites oweni* Miller and Furnish 1940, Miller & Furnish J. Paleont. 28 5 1954 p. 691.

†*Uraloceras serpentinum* sp. nov. *Schwagerina* horizon, Permian. Yurezan river, S. Urals, Russia, S. Maksimora p. 7 pl. 1 f. 1-5.

Utaturiceras gen. nov. Acanthoceratidae, subfam. Metoicoceratinae: genotype species: *Ammonites vicinalis* Stoliczka, 1864. Upper Cenomanian (Cretaceous), C. W. Wright p. 392.

†*Valledorsella gignouxii* sp. nov. Cretaceous. Moghara Massif, Sinai, Egypt, I. G. Mahmoud p. 94 pl. 5 f. 15.

†*Virgataxioceras* gen. nov. type *Virgatosphinctes setatus* Schneid 1914 p. 160 pl. v f. 5 pl. vi f. 4. Middle Kimeridginiae, Bavaria, W. J. Arkell (1) Geol. Mag. 90 1 1953 p. 39.

†*Virgatitacea* **superfam. nov.** Ammonoidea. Virgatitidae Spath, Virgatosphinctidae Spath and Dorsoplanitidae Arkell, **N. T. Sazonov** p. 117.

†*Walcottoceras helleri* **sp. nov.** Ordovician Texas, **Unklesbay (1)** J. Paleont. **28** 5 1954 pp. 637, 652 pl. 71 f. 5-7.

†*Witchellia tibetica* **sp. nov.** Bajocian Tibet, **W. J. Arkell (2)** Geol. Mag. **90** 5 1953 p. 332 pl. xiv f. 7a, b.

†*Yebisites* **gen. nov.** p. 205 Psiloceratidae. Genotype: *Y. onoderai* **sp. nov.** p. 207 pl. 30, Shizukawa Group, Jurassic. Miyagi Prefecture, Japan, **T. Matsumoto.**

†*Yokoyamaoceras ornatum* p. 183 pl. 16 f. 3a, b, 4a-d, Abeshinai Valley; *Y. minimum* p. 185 pl. 16 f. 6a-c, Ikushumbets Valley **spp. nov.** Cretaceous, Hokkaido, Japan, **T. Matsumoto (1).**

†*Zieteniceras* **subgen. nov.** of *Hecticoceras*, subgenotype: *H. zieteni* de Tsyrovitch, 1911. Callovian Jurassic, Blumberg, Germany, **A. Zeiss** p. 24.

INSERTAE SEDIS

Agasoma Gabb "[1869]", neuter gender, **Direction 42.**

†*Cowwarrella* **gen. nov.** Genotype: *C. cylindrica* **sp. nov.** Siluro-Devonian. Marble Creek, Thomson river, Victoria, Australia, **Talent & Philip** p. 61 pl. 6 f. 12-14.

†*Ostlerina* **gen. nov.** Genotype: *O. delicata* **sp. nov.** Siluro-Devonian. Marble Creek, Thomson river, Victoria, Australia, **Talent & Philip** p. 59 pl. 6 f. 1-4 text-f. 2, 3.

†*Stenothecoides*, on the shell structure, **F. Rosetti.**

